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FOCUS ON SPOKEN LANGUAGE

Special issue
edited by

Liisa Lautamatti

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Kielikeskusuutisten aikaisempia teemanumeroita

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PREFACE

This volume is a continuation of a series of special issues of Language Centre News, of which the first volume, ON TEACHING AND TESTING COMMUNICATIVE COMPETENCE, was published in 1976. The collection of articles in this volume represents some of the interesting new approaches in applied linguistics research that language teachers may find relevant to the teaching and testing of spoken language skills in a foreign language.

Spoken language presents particular problems for language teachers: it is situation-bound, relies heavily on extra-linguistic factors, and often has to be interpreted on a basis completely different from that used in the interpretation of written language. For a language teacher, the teaching of spoken language skills is further complicated by cultural and social aspects of communication.

Some of these problems are discussed in this volume. The articles range from those representing a fairly global approach, such as Butzkamm's paper on communicative language teaching, Sajavaara and Lehtonen's on the concept of fluency in spoken language, and Roussel's on transfer in the learning of spoken language skills, to those by Brown and Mendelsohn, both of whom throw new light on intonation as a part of communicative language use. Tommola's paper, which examines ways of using redundancy of spoken language for testing purposes, takes as its explicit starting-point a view of language performance as a dynamic and creative act of communication, a view more or less implicitly shared by all the articles in the volume.

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FREMDSPRACHENUNTERRICHT ALS KOMMUNIKATIONSPROZESS

In diesem Beitrag möchte ich nicht, wie beim Thema Kommunikation vielfach üblich geworden, in die Begriffe "linguistische Kompetenz" und "kommunikative Kompetenz", in die Sprechaktphilosophie oder in die Kommunikationstheorie Watzlawicks einführen, und sie hernach im Hinblick auf eine sog. Pragmadidaktik auswerten. Stattdessen möchte ich von dem Konzept der Didaktisierung, d. h. der Umsetzung ursprünglich unterrichtsfremder Theoriestücke für die Belange des Lehrens und Lernens abrücken und die Perspektive des Unterrichts als eines ständigen Kommunikationsprozesses auf der Grundlage analysierter Unterrichtswirklichkeit konstruktiv entfalten. Mit diesem eigenständigen didaktischen Ansatz hoffe ich, ohne theoretischen Verlust verständlich zu bleiben und auf der Hut zu sein gegen die Anmassung der Theorie, die Welt noch einmal zu erschaffen.

1. Ich möchte mein Thema in fünf Thesen entwickeln[1]. Meine erste These lautet: Unterricht als Kommunikationsprozess lässt sich auf der Achse sprachbezogen-mitteilungsbezogene Kommunikation einstufen.

Momentaufnahme aus einer Deutschstunde an einer finnischen Gesamtschule, Anfang des 2. Lehrjahrs. Der Lehrer übt einen Basisdialog ein, in dem der Satz vorkommt: "Ich bin ein Durschschnittsschüler in einer Durchschnitts-

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1) Drei dieser Thesen habe ich schon auf einem Vortrag auf der Tagung des Arbeitskreises Deutsch als Fremdsprache, Mainz 1977, vorgestellt. Der Vortrag wird demnächst in einem von D. Eggers edierten Materialienband erscheinen.

schule". Als erstes Teillernziel ist angestrebt, dass die Schüler den vorgegebenen Dialog mit verteilten Rollen ohne Textvorlage so sprechen können, als ob es sich um ein spontanes, natürliches Gespräch handele. Das Ziel ist ohne konzentriertes, imitatives Üben nicht zu erreichen. Der Lehrer spricht den Satz vor, einzelne Schüler wiederholen, bleiben stecken, der Lehrer wiederholt einen Teilsatz, isoliert schliesslich das schwierige Wort "Durchschnittsschüler", spaltet auch das noch auf und lässt das Wort "Durchschnitt" wiederholen, bis er wieder zum ganzen Satz zurückkehrt, der auch einmal von der Klasse im Chor nachgesprochen wird. Etwas später fragt der Lehrer den Inhalt des gerade imitativ erarbeiteten Textes ab: Wer unterhält sich miteinander? Welche Antwort gibt Lucie darauf? usw.

Ist das, was hier geschieht, fremdsprachliche Kommunikation? Die Didaktik hat das bisher verneint. Im ersten Fall handele es sich einwandfrei um eine kommunikationsvorbereitende Nachsprechübung, und was darauf folge, sei allenfalls Scheinkommunikation. Der Lehrer stelle ja keine "echten" Fragen, da er die Antworten schon kenne, er wolle nur prüfen, ob die Schüler ihn auch verstehen bzw. die Antworten sprachlich produzieren können. Und dennoch besteht gar kein Zweifel, dass hier Sprache gebraucht wird, um "einer dem anderen etwas mitzuteilen über die Dinge" (Platon, zit. bei Hörmann 1970, 21). Unser Beispiel ist mithin ein Fall von Kommunikation und die Fremdsprachendidaktik befindet sich heute in einer ähnlichen Lage wie M. Jourdain in der Molièreschen Komödie, der plötzlich erfährt, dass er sein ganzes Leben lang Prosa gesprochen habe, ohne es zu wissen. Wir haben also im Unterricht schon immer fremdsprachliche Kommunikation betrieben, nur: die Schüler teilen hier einander nicht mit, dass sie in der Tat Durchschnittsschüler seien, sondern sie zeigen einander, vor allem aber dem Lehrer, ob bzw. wie weit sie imstande sind, dieses Stück Sprache zu verstehen, artikulieren und intonieren. Ich nenne diesen im Fremdsprachenunterricht vorherrschenden Typ von Kommunikation sprachbezogen (medium-orientated). Entscheidendes Bestimmungskriterium ist die Sprecherabsicht: ist eine Äusserung primär darauf gerichtet, kundzutun, dass die Äusserung als solche sprachlich gelingt und wie gut sie sprachlich gelingt, ist sie sprachbezogen. Dominiert eine andere Absicht - all' die verschiedenen Absichten, die wir mit unserem Sprechen verbinden können, werden sich wohl nie erschöpfend auflisten lassen - spreche ich von mitteilungsbezogener Kommunikation (message-orientated communication). Da unsere Absichten oft nicht eindeutig sind und wir in unserem Sprachhandeln oft mehrere Ziele gleichzeitig verfolgen und unsere Nebenabsichten und Hintergedanken haben können, handelt es sich hier nicht um zwei Begriffe, die das unterrichtliche Kommunikationsfeld in zwei getrennte, einander nicht überschneidende Sektoren vollständig aufteilen, sondern eher um eine Dimension, auf der verschiedene Episoden im didaktischen Kommunikationsprozess ganz unterschiedliche Orte einnehmen können. Aus Zweckmässigkeitsgründen empfiehlt es sich, diese Dimension in fünf Bereiche einzuteilen:

eindeutig sprachbez.	vorwiegend sprachbez.	Mischformen	vorwiegend mitteilungs-bezogen	eindeutig mitteilungs-bezogen

Das Nachsprechen und Abfragen von Regeln, Vokabeln und Inhalten, die allen geläufig sind bzw. sein müssten, ist gewöhnlich eindeutig sprachbezogen. Eine auf diese Fragestellung ausgerichtete Unterrichtsanalyse zeigt jedoch, dass auch eine Nachsprechübung mitteilungsbezogene Elemente enthalten kann: Der Lehrer fordert bewusst einer Schüler zum Nachsprechen auf, der sich gerade abgewandt hat und auf irgendeine Weise nicht an der Übung beteiligt ist. Der Lehrer will also nicht nur wissen, ob gerade dieser Schüler die sprachliche Aufgabe bewältigen kann, sondern verbindet damit auch die Absicht, den Schüler am Übungsgeschehen zu beteiligen und ihm möglicherweise eine verkappte Rüge zu

erteilen. Auf der Empfängerseite wird dann dieses Manöver auch durchschaut und die unterschwellige Absicht erkannt: der Schüler spricht vielleicht unwillig oder zu eilfertig nach wie jemand, der sich ertappt fühlt. Glauben wir eine solche Komponente in dem die Äusserung motivierenden Gesamtkomplex zu entdecken, so ist selbst die Aufforderung zum Nachsprechen nicht eindeutig, sondern vorwiegend sprachbezogen einzustufen. Das Beispiel zeigt auch, dass die Dimension sprachbezogen-mitteilungsbezogen nicht mit einer Skala identisch ist, auf der die verschiedenen Freiheitsgrade einer Äusserung abgesteckt werden. Die völlig determinierte Äusserung, wie sie beim Nachsprechen gegeben ist, muss nicht immer zugleich rein sprachbezogen sein. Wenn wir wirklich wissen wollen, was sich kommunikativ ereignet und wie Verständigung scheitert oder zustandekommt, müssen wir solche Nuancierungen erfassen.

Wie wäre nun aber ein Redeaustausch einzustufen, in dem sich beispielsweise der Referendar, der neu in eine Klasse kommt, etwa nach Herkunft, Alter, Zahl der Geschwister seiner Schüler erkundigt? Wir haben uns zu fragen, ob er einfach darauf aus ist, seine Schüler zum Sprechen zu bewegen, vielleicht sogar die Reproduktion ganz bestimmter und vorher dargebotener Wörter und Wendungen im Auge hat, oder ob ihn die tatsächlich gegebenen Auskünfte primär interessieren und er einen Augenblick lang aus einer - eng verstandenen - Rolle des Sprachlehrers herausgeschlüpft ist und ein Gespräch von Person zu Person entsteht. Schwierigkeiten bei der Einstufung ergeben sich weiterhin dadurch, dass der Lehrer sprachbezogen agieren kann, der Schüler aber ein weitergehendes Interesse an seiner Person und seinen Verhältnissen unterstellt und umgekehrt, d.h. es gibt eine Unstimmigkeit zwischen Meinen und Verstehen, Sender und Empfänger. Die heuristische Fruchtbarkeit der eingeführten Begriffe erweist sich dort, wo man plötzlich entdeckt, dass sich in einem äusserlich homogenen, gleichförmigen Unterrichtsabschnitt der didaktische Kommunikationsprozess auf der Achse sprachbezogen-mitteilungsbezogen mehrfach verschiebt.

Der Lehrer erfragt relativ mechanisch und gleichgültig die Zahl der Geschwister, bis er plötzlich erfährt, dass jemand ein Dutzend Geschwister hat. Sein Interesse ist erwacht, die Mitschüler horchen auf, man will wissen, wie es in einer so grossen Familie zugeht. Ein solches Frage-und-Antwort-Spiel kann sowohl primär sprachbezogene wie primär mitteilungsbezogene Elemente enthalten und natürlich auch Mischformen, in denen keine bestimmte Absicht als dominant erkennbar ist. - Eindeutig mitteilungsbezogen sind u. a. Aufforderungen des Lehrers wie, die Fenster zu schliessen, die Bücher aufzuschlagen usw., die das sprachbezogene Übungsgeschehen begleiten oder erst in Gang setzen, sowie auf Schülerseite etwa das Unterbrechen einer Übung durch Nachfragen oder Einwendungen, das Aufmerksam-machen auf Fehler oder irgendwelche Missstände, das Einbringen eigener Unterrichtsvorschläge. Gemeint sind also alle Formen des Kommunizierens, die der Unterrichtsorganisation und der Verständigung in der Klasse dienen und die oft als classroom discourse bezeichnet werden. Mit dieser Dimension gelingt es, Annäherungsgrade an das, was wir gewöhnlich unter natürlicher Sprachverwendung ausserhalb einer Sprachlehrsituation verstehen, zu beschreiben. Sie kann durch eine Skala, die das kommunikative Geschehen zwischen den Polen determiniert (syntaktisch-morphologisch-lexikalisch - intonatorische Vorgabe einer Äusserung) und frei einstuft, sinnvoll ergänzt werden. Reine mitteilungsbezogene Kommunikation entspricht unserem natürlichen Sprachgebrauch, in dem wir die Sprache für die tausendfältigen Zwecke unseres Tuns und Handelns einsetzen. Sie wird zumeist, aber nicht notwendigerweise, mit einer völlig freien Äusserung identisch sein, bei der es in das Belieben des Sprechers gestellt ist, was er sagt, wie und mit welchen Worten er es sagt, wann er etwas beiträgt und an wen er sich dabei wendet.

2. Meine zweite These lautet, allgemein formuliert: Was immer auch als anzustrebendes Endverhalten eines Sprachlehrgangs bestimmt wird, dieses Endverhalten selbst muss im Lehrgang ausgiebig und immer wieder geübt werden. Fachspezifisch

formuliert: Gilt das Lehrziel, Schüler in die Lage zu versetzen, ausländische Zeitungen zu lesen und zu verstehen, muss diese Tätigkeit im Kurs selbst häufig geübt werden. Oder: Gilt das Lehrziel, Schüler in die Lage zu versetzen, sich im Alltag des Auslandes mündlich zu verständigen, müssen entsprechende rein fremdsprachige Situationen auch im Lehrgang häufig geübt werden. Mit anderen Worten: Die Fähigkeit zur mitteilungsbezogenen Kommunikation muss u. a. durch häufiges mitteilungsbezogenes Kommunizieren selbst ausgebildet werden.

Man kann diesen Grundsatz gedächtnispsychologisch begründen, indem man darauf verweist, dass die Bedingungen für das Erinnern optimal sind, wenn sie den Bedingungen, unter denen das Material eingeprägt wurde, entsprechen. Der Schüler ist am besten auf das Vokabelabfragen vorbereitet, der beim Lernen die Situation im Unterricht, die Art und Weise, wie der Lehrer Vokabeln abfragt, möglichst genau kopiert.

Eine fertigkeitspsychologische Begründung ergibt sich aus der allgemein bekannten Tatsache, dass man Fertigkeiten durch ganzheitliches Ausüben der Fertigkeit selbst erwirbt, also Skifahren durch Skifahren und Klaviersonaten spielen durch Klaviersonaten spielen, und somit auch Kommunikation durch Kommunikation. Mein Eindruck ist, dass gegen dieses Prinzip häufig verstossen wird. Mancher Fremdsprachenunterricht liesse sich mit dem Wort beschreiben, das der Dramatiker Hochhuth auf die von ihm offenbar wenig geliebte Zunft der Kritiker anwendet: "Nie etwas sagen, nur immer nachsagen ... bis Nachsagen zum Haupttrieb wird". Man bedenke, dass auch Übungsformen, in denen der Schüler relativ frei und selbständig formulieren muss, wie die Bildgeschichte oder die Nacherzählung, keine mitteilungsbezogene Kommunikation darstellen. Der Unterricht in Deutschland und im Ausland, in dem ich hospitieren konnte, bewegte sich überwiegend im Bereich vorgestanzter Übungsformen, die dem Lehrer mehr Sicherheit geben können als ein Gespräch, das nicht durchplanbar ist und unerwartete

Wendungen bringen kann. Man sollte nicht vergessen, dass das Bedürfnis nach Sicherheit und Geborgenheit, nach Freiheit von Angst und Furcht - in Maslows bekannter Hierarchie das grundlegende geistig-seelische Bedürfnis des Menschen, das unmittelbar nach den absolut notwendigen körperlichen Bedürfnissen reagiert - auch für den Lehrer gilt.

Noch andere Gründe mögen mitspielen. In Finnland konnte ich drei Deutschstunden besuchen, Lehrproben, die von Referendaren (Auskultanten) gehalten wurden. Jedesmal stand ein Lehrbuchtext im Mittelpunkt. Jedesmal versuchte der Referendar aus dem üblichen (und wohl auch notwendigen) Abfragen des Textinhalts auszubrechen, jedesmal wurde es ihm von der Klasse verwehrt. Im ersten Text lässt ein Medizinprofessor einen Studenten beim Examen durchfallen. Schliesslich kommt die Frage des Referendars an die Kinder: "Ihr habt auch Prüfungen. Sind die schwer?" Schweigen ringsum. Schliesslich sagt einer "ja". Der Referendar gibt auf und macht weiter im Text. Im zweiten Text macht eine Familie Ferien im Hotel. Männer, Frauen und Kinder vergnügen sich dabei auf verschiedene Weise. "Ihr habt auch Ferien", fragt der Lehrer, "was ist dir da wichtig?" Schweigen ringsum. Der Lehrer gibt noch nicht auf, hakt nach: "Was denkst du?" und ruft schliesslich jemand namentlich auf. Der, langsam, aber bestimmt: "Ich denke nichts". Alles lacht, der Lehrer macht weiter im Text. Im dritten Text kauft die Lehrbuchfamilie im Supermarkt ein, um die nötigen Zutaten für bestimmte Speisen zu besorgen. Der Lehrer fragt nach den Namen von Speisen und Gerichten, die im Text vorkommen, und schliesslich: "Was ist dein Lieblingsgericht?" Keine Reaktion, der Lehrer geht zurück zum Lehrbuchtext.

Hier mag die besondere Mentalität der Finnen im Spiele sein, die Brecht, der ein Jahr im finnischen Exil zubrachte, ein Volk nannte, "das in zwei Sprachen schweigt." Das Problem der unterschiedlichen völkischen Mentalitäten kennt man besonders in den Deutschkursen der Auslandsämter, in denen die Nationalitäten oft bunt gemischt sind. Auch die Tatsache der vielen Zuhörer - die Referendargruppe, der

Betreuungsdozent und der auswärtige Besucher - kann einen hemmenden Einfluss ausgeübt haben. Von grösserer Wichtigkeit scheint mir jedoch ein dritter Faktor zu sein: die Klasse muss gespürt haben, dass die Fragen nach ihren persönlichen Vorlieben und Verhältnissen nicht ernst genug waren. Die Referendare waren einfach zu sehr mit sich selbst und ihrer Lehrprobensituation beschäftigt, als dass sie eindeutig mitteilungsbezogen hätten agieren können. Vielleicht hatten Klasse und Referendar auch nicht genügend Zeit miteinander gehabt, so dass sich ein persönliches Interesse aneinander hätte entwickeln können. Paralinguistische und nonverbale Begleitmerkmale können den primär sprachbezogenen Charakter einer Äusserung deutlich machen: z. B. wenn der Lehrer die scheinbar persönliche Frage im gleichen Tonfall wie eine Vokabelfrage stellt oder wenn er verbal Interesse an der Person des Schülers bekundet, andererseits aber dessen Namen vom Sitzplan ablesen muss. Es zeigt sich hier, dass Fremdsprachenunterricht mehr ist als das blosse Vermitteln eines neuen Informationssystems an sog. Adressaten. Wir übermitteln nicht bloss ein Trägersystem von Informationen und Inhalten, sondern liefern dabei auch schon die Inhalte mit und stehen als Kommunikationspartner in vielfältigen persönlichen Beziehungen zueinander.

3. Der Grundsatz, dass der Unterricht viel Zeit für die ganzheitliche Zielhandlung selbst, in unserem Fall die mitteilungsbezogene Kommunikation, zur Verfügung stellen muss, bedeutet nicht, sprachbezogene Kommunikation sei von Übel. Deshalb lautet meine dritte These: Sprachbezogenes Sprechen bereitet mitteilungsbezogene Kommunikation vor und ist in dieser Funktion unentbehrlich. Ein Fehler ist es, in lauter Vorbereitungen stecken zu bleiben; ein anderer, gänzlich unvorbereitet ins Sprachbad zu tauchen; der Untergang ist gewiss. Auch die These vorbereitenden, schwierigkeitsreduzierenden, einzelheitlichen Übens ist fertigkeitspsychologisch untermauert. Wer Sonaten vortragen will, muss auch Tonleitern üben oder rechte und linke Hand getrennt

üben. In den Worten Johann Gottfried Herders: "Denn auch in der Kunst seine Sprache zu brauchen fällt der Meister so wenig vom Himmel als in der Tonkunst. In dieser müssen die Finger, in jener die Organe geübt werden, zusamt den Seelenkräften ..." Die methodische Kernfrage ist, wie es gelingen kann, diese vorbereitenden Phasen so schnell wie möglich hinter sich zu bringen, so dass die Schüler genügend Sicherheit und Selbstvertrauen verspüren, um in die mitteilungsbezogene Kommunikation mit ihren unverhofften und ungeregelten Abläufen einzutreten. Wiederum sei an Maslow erinnert, der dargelegt hat, dass zunächst die elementaren Bedürfnisse erfüllt sein müssen, wie z. B. das Bedürfnis nach emotionaler Sicherheit und die Freiheit von der Angst des Versagens und der Blossstellung, bevor höhere kognitive Kräfte wie Kombinatorik, Ideenfluss und Fantasie ins Spiel kommen können.

Meiner Erfahrung nach können gerade die heute etwas in Verruf geratenen Strukturübungen die Brücke bilden von einem vorgegebenen Ausgangstext zu einem Eigentext bzw. von der Reproduktion zur freien Produktion und selbständigen Kommunikation. Nehmen wir an, der folgende Dialog aus der Peanuts-Serie von Charles M. Schulz sei bereits eingeführt, d. h. semantisiert und phonetisiert worden, und die Schüler hätten ein wichtiges Zwischenspiel erreicht, d. h. sie könnten den Text mit verteilten Rollen frei darbieten, als ob es sich um ein natürliches Gespräch handele.

Lucie: Du hast eine Vier in Geschichte?
Das ist nur Durchschnitt.

Linus: Na und?
Ich bin ein Durchschnittsschüler in einer Durchschnittsschule. Was ist daran nicht in Ordnung?

Lucie: Du könntest mehr leisten.

Linus: Das ist die Durchschnittsantwort.

An die gespielte Reproduktion sind hohe Ansprüche zu stellen. Gerade im Hinblick auf das Lehrziel Kommunikationsfähigkeit

dürfen, was Intonation, paralinguistische und non-verbale Begleitmerkmale anlangt, keine Abstriche gemacht werden. Diese Bemerkung führt zu meiner vierten These: Mitteilungsbezogenes Sprechen ist nicht als isoliertes linguistisches Ereignis vorhanden, sondern nur in einem paralinguistische und nonverbale Elemente enthaltenden Äusserungskomplex existent. Gelingt anstelle des mechanischen Abspulens eine natürliche, lebensgetreue Darbietung, kann man sicher sein, dass die Schüler schon den Schritt von der eindeutig sprachbezogenen Kommunikation zu einer Mischform vollzogen haben. Es ist nämlich gar nicht möglich, einen lebendigen Dialog auch lebendig zu spielen und den richtigen Tonfall zu treffen, ohne sich in die Rolle hineinzuversetzen. Man mache die Probe aufs Exempel und versuche, ein beliebiges Stück Dialogtext wirklich so zu sprechen, dass man exakt den Tonfall trifft und die Miene dazu macht, die sich in einer ungestellten Situation von selbst ergeben würde: man wird feststellen, dass man mit diesen "Äusserlichkeiten" unwillkürlich auch Geist und Gehalt des Textes aufnimmt. Konzentriert man sich umgekehrt auf Geist und Gehalt eines Textes, so stellen sich beim Sprechen die für einen Ablauf typischen mimischen und gestischen Signale ein, viele davon oft ganz unbemerkt von uns. Dazu müssen wir aber momentan aus der Rolle des Sprachschülers in die Textrolle schlüpfen. Dies ist die Voraussetzung für die Einbindung einer neuen Äusserung in das kommunikative Gesamtrepertoire.

Ein Beispiel für die psychologische Zusammengehörigkeit von bestimmten phonetischen Merkmalen und geistig-seelischem Gehalt einer Äusserung liefert Stevick (1976, 53). Stevick kann seine Muttersprache Englisch mit typisch spanischem, französischem oder deutschem Akzent sprechen. Es ist ihm jedoch unmöglich, diesen ausländischen Akzent in einem ernsthaften Gespräch zu verwenden, die Nachahmung gelingt nur beim Spiel, zum Spass und zum Schabernack.

Der Schritt hin zur mitteilungsbezogenen Kommunikation kann hier also aufgrund der typisch menschlichen Fähigkeit gelingen, von seiner eigenen Lage abzusehen und sich ganz

in andere, fremde oder fiktive Personen einzufühlen. Shirley MacLaine berichtet in ihrer Autobiographie (1974, 146), wie sie aus ihrem Hotelfenster in Kalkutta das Ein- und Aussteigen bei den stets überfüllten Bussen beobachtet: "Menschenmassen quollen aus dem Bus, und ebenso viele drängten sich mit flatternden Saris und Dhoties hinein. Ich machte mich unwillkürlich dünn, sooft ich dieses Gequetsche mit ansah. Einige Leute mussten jedesmal zurückbleiben, auch wenn sie ein paar Meter nebenher rannten und hilfreiche Hände sich ihnen entgegenstreckten." Dieses körperliche Mitgehen ist der äussere Ausdruck für die innere Anteilnahme.

Im Unterricht muss der Lehrer auf diese äusseren Zeichen achten, eben weil sie innere Ergriffenheit durch den Text oder die Rolle untrüglich anzeigen. Der Lehrer hat dann die Gewissheit, dass der Text tiefere Schichten der Persönlichkeit erfasst hat und darum besser behalten wird (vgl. die 'dimension of depth' bei Stevick 1976, 34 ff.). Leider begnügen sich viele Lehrer bei der Reproduktion von Dialogen mit viel weniger, so dass manche Autoren dem Fehler verfallen sind, sich grundsätzlich gegen das Auswendiglernen fetiger Texte auszusprechen.

Zurück zu unserem Textbeispiel. Wir gehen also davon aus, das Zwischenspiel der freien Reproduktion sei in unserem umfassenden Sinne erreicht worden. Um aber eigene Kommunikationsbedürfnisse auszudrücken, dürfen wir nicht bei einer noch so gekonnten Wiedergabe stehen bleiben. Den Brückenschlag von der blossen Übernahme fertiger Rollen zu eigenen Kommunikationen können wir mit Hilfe von Substitutionstafeln, monolingualen und bilingual gesteuerten Strukturübungen tun. Das Entscheidende an diesen Austauschübungen ist nun aber das, was bisher eher als unwichtiges lexikalisches Füllsel galt. Das wechselnde Vokabular - so argumentierte man bisher - ist dazu da, die Monotonie der bis zur habituellen Handhabung der Struktur notwendigen vielen Wiederholungen zu vermeiden. Das ist richtig, wenn man als Ziel nur die Automatisierung einer Struktur vor Augen hat. Bedenkt man aber, dass mit den wechselnden Wörtern auch wechselnde Inhalte sichtbar werden,

veränderte Kontexte aufscheinen und neuer Sinn möglich wird, so wächst der Strukturübung eine weitere Funktion zu: sie macht erfahrbar, was nunmehr mit der Einübung eines neuen Sprachstücks alles sagbar geworden ist; sie zeigt mir an, welche Ausdrucksbereiche sich mir erschliessen. Daraus ergibt sich die Aufgabe des Lehrers, die Lexik nicht einfach als beliebig zu betrachten, sondern durch die Auswahl der Lexik seinen Schülern relevante Kommunikationsbereiche zu eröffnen. Durch blosses sprachliches Manipulieren kann man den riesigen in der Sprache daliegenden Gedankenvorrat anzapfen. Der Volksmund, die Werbung und die Dichtung wissen das und machen davon Gebrauch. Man bedient sich des simplen Tricks des Austausches eines lexikalischen Elements und vermag damit immer wieder aufs neue zu überraschen.

"Kennst du das Land, wo die Zitronen blühn" dichtet Goethe. "Kennst du das Land, wo die Kanonen blühn" grollt Kästner. So auch im Fremdsprachenunterricht. Denn die Sprache verleugnet ihren realen Herzschlag nicht einmal im scheinbar öden Strukturdrill. Anfänglich spielen wir bloss mit der Sprache, prüfen, was in diese oder jene Satzlücke passt, haken die Liste der eingeführten Vokabeln ab, und plötzlich reisst die Sprache uns fort, öffnet uns neue Bereiche des Ausdrucks.

So scheint unsere Austauschübung zunächst auf den Bereich Zeugnisse und Zensuren beschränkt, immerhin ein bedeutsames Gesprächsthema in der Schule:

	ein		Geschichte
	zwei		Mathe
Du hast eine	.	in	Deutsch
Hast du eine	.		Englisch
	.		Physik
	sechs		

	prima
	Klasse
	in Ordnung
Das ist	(nur) Durchschnitt
	nicht in Ordnung
	schade
	schlecht

Doch gibt Austausch und Abwandlung des Satzes

Du könntest mehr leisten

gleich eine Reihe verschiedener Perspektiven frei. Die mit dieser Äusserung möglichen Sprechakttypen der Ermahnung, des gut gemeinten Ratschlages, des frommen Vorsatzes, der höflichen Kritik kommen in vielen Lebensgebieten oder Sachbereichen vor.

			mehr	leisten
			langsamer	sprechen
			schneller	vorgehen
			weniger	fehlen
			mehr Tierfilme	zeigen
			bessere Gesetze	machen
ich			sachlicher	argumentieren
du	könnt-	etwas	mehr Geld für ...	geben
er		ein bisschen		
sie	sollt-	noch		
man				
			länger	schlafen
			häufiger	fernsehen
			weniger	essen
			weniger	trinken
			höflicher	
			ruhiger	sein
			freundlicher	
			schneller	abgeben
			genauer	abspielen

In Analogie zu vielen von mir auf Band aufgezeichneten und analysierten Englischstunden stelle ich folgenden Übungsverlauf vor:

1. Satzschalttafel: Ablesen von der Tafel, aber flüssiges intonationsgerechtes Sprechen.

2. Mündliche Dolmetschübung, d. h. muttersprachliche Steuerung der Sätze der Satzschalttafel und weiterer Sätze nach gleichem Muster.

3. Monolinguale Steuerung
Vielleicht beginnt man mit dem Hier und Jetzt, dem Bereich der Schule bzw. des Lehrgangs. Der Lehrer könnte Sätze des gewünschten Typs wie folgt anregen:

Spreche ich nicht deutlich genug?
Spreche ich zu viel?
Was möchtest du bei mir verbessern?
X kommt oft zu spät.
Y meldet sich nie.

Von hier aus kann man zu Bereichen des öffentlichen Lebens übergehen. Der Lehrer muss die Bereiche abtasten, von denen er weiss oder annimmt, dass sie für seine Schüler irgendwie relevant sind. Er kann Personen nennen, die im Kreuzfeuer der Kritik stehen, bei denen man spontane Reaktionen erwarten darf, oder auch Ereignisse, die gerade Tagesgespräch sind. Ein politisches und kulturelles Reizklima kommt ihm da zustatten:
Was sagen Sie zu Idi Amin? Jimmy Carter? Zum Schulessen? Zum Streik in ...?

Schliesslich kann man auf den privaten Bereich und die ganz persönlichen Dinge zu sprechen kommen:
Sie sind doch in einem Volleyballteam, nicht wahr?
Was wünschen Sie sich manchmal von Ihren Mannschaftskameraden? Sie haben doch einen älteren Bruder. Möchten Sie, dass er sich ändert? Haben Sie manchmal auch eigene Vorsätze, Wünsche an sich selbst, den Willen, sich zu ändern?

Ich stelle hier den Grundsatz auf, dass es ganz unvermeidbar ist, dass in einem kommunikativen FU alle Teilnehmer viel voneinander wissen!

4. Freies Sätzebilden
Es hängt vor allem von der Anregungskraft der vorauslaufenden Phasen ab, ob spontan weitere Sätze gebildet werden und ob lediglich eine grammatische Aufgabe erfüllt wird und nichtssagende Sätze gebildet werden oder aber versucht wird, Wortwirklichkeit und eigene Wirklichkeit zur Deckung zu bringen.

Auf diese Weise wird es auch möglich sein, die Teilnehmer in kurze Gespräche zu verwickeln, d. h. kleine, vorwiegend mitteilungsbezogene Frage-und Antwort-Spiele in eine Strukturübung einzustreuen.

Lehrer: Sie singen doch im Schulchor. Möchten Sie dort etwas ändern?
Schüler: Wir sollten vielleicht etwas weniger oft proben.
Lehrer: Wieso? Ein Chor, der häufig probt, singt besser!
Schüler: Ja, aber viele Schüler haben nicht so viel Zeit.

Dieses Gespräch ist zwar nur ein Austausch zwischen dem Lehrer und einem Schüler, doch hören die übrigen sicher interessiert zu. Sie merken: hier wird nicht nur Sprache geübt, sondern sie erfahren hier vielleicht etwas Neues über ihren Mitschüler.

4. Goethe schreibt in Dichtung und Wahrheit (dtv-Gesamtausgabe Nr. 23, S. 101) von Besuchen der Dresdner Galerie während seiner Studentenzeit: "Ich besuchte die Galerie zu allen vergönnten Stunden, und fuhr fort, mein Entzücken über manche köstlichen Werke vorlaut auszusprechen. Ich vereitelte dadurch meinen löblichen Vorsatz, unbekannt und unbemerkt zu bleiben ... Da man auch mit Fremden und Unbekannten solche Werke nicht stumm und ohne wechselseitige Teilnahme betrachten kann, ihr Anblick vielmehr am ersten geeignet ist, die

Gemüter gegeneinander zu eröffnen, so kam ich daselbst mit einem jungen Manne ins Gespräch ..." "Die Gemüter gegeneinander zu eröffnen" - es gibt keine bessere Formel für geglückte Kommunikation.

Doch bei welchen Gelegenheiten gelingt uns das? Ich glaube nicht, dass mir dies glücken könnte, wenn ich mit einer Schülergruppe eine Gemäldegalerie besuchte. Hier setzt meine 5. These an: Für die Qualität der Kommunikation - und damit auch für das Lernresultat - sind die Kommunikationsinhalte entscheidend. Mir scheint, dass man über die Definitionsversuche des kommunikativen Prozesses und die Beschreibung seiner Modalitäten den Gegenstand der jeweiligen Kommunikation selbst, also das, was kommuniziert wird oder worüber man kommuniziert, zu wenig hervorgehoben hat. Im Fremdsprachenunterricht könnte man zusammenfassend von Unterrichtstextinhalten sprechen, ein Begriff, der die Inhalte und Themen sowohl von Dialogen und Lesenstücken als auch die thematischen Aspekte einzelner Übungssätze oder Randbemerkungen (z. B. über das schöne Wetter) einschliesst.

Dieser Begriff ist in der Fremdsprachendidaktik bisher nicht eingebürgert: unter dem "Thema einer Übung" versteht man normalerweise das grammatische Problem, das geübt werden soll, nicht etwa die Tatsache, dass jeder Satz der Übung auch eine inhaltliche Aussage trifft; sozusagen einen Mini-Text darstellt. Die inhaltliche Problematik wurde bisher vorwiegend unter dem Blickwinkel der auszuwählenden Situationen und der zu vermittelnden Landeskunde gesehen. Der Begriff Unterrichtstextinhalte bezieht dagegen alle im Unterricht vorkommenden Äusserungen ein.

Wie ist das Problem der Inhalte methodisch anzugehen? Eine Teillösung wurde im vorangehenden Unterrichtsbeispiel gezeigt: durch die Techniken des Austausches, Weglassens und Erweiterns vorgegebener Texte gelangen die Schüler schliesslich dazu, eigene Inhalte auszudrücken. Die Übung ist so gestaffelt, dass die Schüler zunehmend selbst bestimmen können, was sie sagen und worüber sie sprechen. Damit ist jedoch die Frage nach einer für den Basis- oder

Ausgangstext geeigneten Thematik keineswegs beantwortet.

Dazu abschliessend einige Bemerkungen. Unser Beispieltext aus der Peanuts-Serie zeigt, dass ich an Themen denke, die sich auf das Hier und Jetzt der Schüler selbst beziehen. Schulleistungen, Zensuren und Zeugnisse beschäftigen die Schüler, ja bedrängen und bedrücken sie oft. Meiner Erfahrung nach kann ein solcher Text guten Gesprächsstoff bilden und bei den Schülern zur Klärung der eigenen Lage beitragen[1]. Auch wegen seiner Kürze ist unser Beispieltext musterhaft, denn er lässt den Schülern Zeit und Spielraum, das Thema für eigene Kommunikationen abzuwandeln.

Das Hier und Jetzt der Schüler, ihr Schulleben und ihre Familienprobleme gelten für mich nicht als die Zauberformel, die alle Schwierigkeiten auf der inhaltlichen Ebene löst. Im Grunde geht es darum aufzuzeigen, dass man Kommunikation im Fremdsprachenunterricht nicht wie weitgehend üblich nur über Belanglosigkeiten betreiben darf (jemand bestellt ein Bier, kauft im Supermarkt ein, telefoniert usw.). Der Fremdsprachenunterricht ist ja frei, auch anderes anzusprechen, nämlich das, was unter die Haut geht, was uns existentiell berührt. Das kann auch das Thema "Leiden" sein - etwa der Hunger in den sich ausbreitenden Wüstenzonen der Erde, der uns in Europa noch so fern scheint oder der Unfall und die Verkrüppelung eines Schulkameraden, der uns nahesteht. Das kann ebensogut das Thema "Freundschaft" sein, das Glücksgefühle wie private Ängste wecken kann, oder irgendein politisches Thema. Wesentlich ist, dass eine Verbindung zum eigenen Leben und Streben hergestellt und auch persönliche Betroffenheit ausgelöst wird. Dafür gibt es

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[1] Welche Fülle von Themen die Schule selbst liefert, ist dargelegt in dem Buch

C. Black / W. Butzkamm: Klassengespräche. Kommunikativer Englischunterricht - Beispiel und Anleitung. (Heidelberg, Quelle & Meyer, 1977)

Dieses Buch bildet in gewisser Weise ein Gegenprogramm zu traditionellen Lehrwerken, deren Texte sich unserer Meinung nach zu einseitig auf künftige Kommunikationssituationen, etwa bei einer Auslandsreise, beziehen.

keine Formel. Kommunikativer Unterricht, der über die kommunikative Bewältigung von Alltagspraxis hinaus und jenseits von Kommunikation als Routine und Ritual die Fixierung des Gesprächs auf das Wesentliche betreibt, ist immer auch eine Kunst. Er fordert anstelle von Stumpfheit, Leere und Resignation Wachheit, Sensibilität und Hoffnung.

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SPOKEN LANGUAGE AND THE CONCEPT OF FLUENCY

In the past few years, discourse analysts have frequently called attention to the fact that in traditional foreign language teaching little or no attention has been paid to other than grammatical competence (see, eg., Widdowson 1973: 65-66, Nyyssönen 1977). Various grammatical elements and sentences have been taught as self-contained units, and knowledge of a language has been equated with knowledge of the grammatical structure of sentences. This has resulted in languages being taught in a vacuum; grammatical competence has been expected to be transferable from such a vacuum to contexts where language is used. Here, as always, language teaching has reflected the situation in research: until quite recently it was grammatical competence (eg. in the Chomskyan sense) which was the major target of linguistic research.

The situation has been further complicated by the fact that claims concerning the spoken variety of language have generally been based on findings derived from written language or highly theoretical treatments of linguistic competence. One more factor, not at all negligible, which influences our attitudes towards various aspects of spoken language is the common everyday application of the term 'fluency', the way in which we interpret the meaning of a 'fluent' speaker. It occurs much too often that such a loose definition affects language teachers' opinions on the language-behaviour which should be the goal of language teaching. In many cases, this layman concept of fluency, or non-fluency, even overshadows the more professional statements that the fluency of a language learner should be correlated to the behaviour of a native speaker.

Fluency is one of the criteria which are given as parameters of a good native or native-like language-behaviour. The term is used in a variety of meanings and it is obvious that a loose application of the term to what might be termed as 'constant flow of speech' or 'periods of relative speech continuity' (see, eg., Henderson 1974: 122) has been among the most prominent. Connected with the fact that judgements of what is fluent and what is not fluent - even what is a pause - tend to be highly subjective, the ambiguity of the term 'fluency' may often result in a dubious assessment of the FL behaviour of language students. It is the loose application of the term 'fluency' to the FL performance of a language learner and its correlation to FL proficiency that we want to take up for preliminary discussion[1] in this paper. All the results reported here are to be considered tentative only and the purpose of this paper is mainly to discuss some parameters of fluency as found in the literature and see to what extent such parameters should be observed in future studies and what methods should be used to test the influence of such parameters. In our future studies, fluency will be related to the learner's communicative competence and communicative strategies and a Finnish learner's competence will be correlated to that of a native speaker in material which includes both oral reading, writing, and speaking tasks. The phonetic parameters of fluency will also be discussed in greater detail later. What is said below about pauses and the rate of speech is highly tentative indeed, and even now it seems obvious that the information about these features will have to be implemented from further material, which may even result in changing some of the opinions expressed here.

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[1] This paper is a preliminary report on work being carried out in connection with the Finnish-English Contrastive Project at the University of Jyväskylä. For further information about the project, see Sajavaara and Lehtonen (eds.) 1977.

Review of literature on fluency

We often find references to the fluency, or non-fluency, of language learners and language teachers (Rivers 1968: 210) without any exact definition of what the writer means by fluency in each context. Fluency is regularly used in non-technical language, and occasionally even in more technical discussion, for a certain type of language-behaviour. In many cases, it seems, the word is used in a rather inexact dictionary sense, such as that of The Oxford English Dictionary 'a smooth and easy flow, readiness, smoothness; esp. with regard to speech', or that of The American Heritage Dictionary, which defines fluent as 'having facility in the use of language; effortless, flowing, polished'. Although it is not always included in the formal definitions, a rather common interpretation of the word, even among language teachers, includes the parameter of quickness; it is found in The Concise Oxford Dictionary (1976), where one of the meanings for fluent is given as 'expressing oneself quickly and easily'. In many cases, elements such as the length of the sentence and the continuity of the sound-wave as uttered by the speaker are added to the distinctive features of a fluent speaker.

In more professional discussions of the parameters of speech, fluency often assumes a kind of optimum level of achievement. The research on fluency, and on disfluency, of native speakers - in most cases it has been connected with research on various kinds of speech disturbances and on the influence of anxiety on speech (for an early summary of research, see Mahl and Schulze 1964) - has concentrated on a variety of parameters and has also touched upon the problems connected with the rhythm of speech. There seems to be a consensus of opinion on there being a regular pattern of relationship between periods of relative speech continuity, often called 'fluent' periods, and periods of hesitancy (see, eg., Goldman-Eisler 1967). Pausing takes up about 30 per cent of the total time used for encoding messages. The

application of the variable of 'phonetic density' which is expressed as the ratio of the pauses to the total duration of speech involves, in the description of fluency, serious problems deriving from the fact that the pause is an ambiguous concept: is a pause to be considered a segment of silence whose duration exceeds a given threshold and, if so, what is this threshold, or is a pause to be considered a segment of speech which is experienced to be a pause? The percentage of pause duration seems to vary in accordance with the communicative situation in a similar way in the speech of both fluent and non-fluent speakers. In oral reading, for instance, the percentage of pauses seems to vary around 30 per cent with all normal speakers irrespective of the fact whether they are reading in the mother tongue or in a foreign language; in informal free speech, however, individual differences are great and a speech performance which is subjectively evaluated to be fluent may have a pause ratio of about 60 per cent while that of another, clearly non-fluent, sample may be 30 per cent. A preliminary analysis of a larger material seems to indicate that in oral reading by fluent native speakers the pause ratio may be systematically higher in various types of texts than in reading by foreign language students.[1]

In many of the studies dealing with fluency or disfluency the material is based on a restricted number of variables. One of the most exhaustive lists of variables is found in Tannenbaum et al. (1967: 208); it includes silent pauses, filled pauses, repeats, false starts,

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[1] The discussion of fluency by Goldman-Eisler (1967: 125) and many other writers is confused to a certain extent by the ambiguous use of the term fluency for certain periods of speech which are characterized by relative speech continuity (as opposed to hesitancy) and for the overall characterization of speech (including both 'fluent' and 'non-fluent' periods). It is this latter type of fluency for which we want to reserve the term in this paper.

message length (words), encoding time (min.), words per minute, sentence length (words), lexical/functional ratio, and subordination index. A number of other criteria could be added from Johnson's (1961: 3-4) categories of disfluency: revisions (I was - I am going), incomplete phrases, broken words, and prolonged sounds. Johnson also goes into a detailed analysis of repetitions and makes a distinction between part-word repetitions, word repetitions and phrase repetitions, whereas the only type of pause which he considers is the filled pause, which for him includes not only interjections of sounds such as uh, er, hm but also "extraneous words such as well, which are distinct from sounds and words associated with fluent text". Like Johnson, most scholars seem to have a preconceived idea of what belongs to a fluent text and what does not belong there.

Pauses have attracted a considerable amount of attention. For various reasons, a distinction should be made between juncture pauses and hesitation pauses (breathing pauses may or may not coincide with these; see Mahl and Schulze 1964: 56, Henderson 1974). Juncture pauses are relatively short and mostly unfilled; they may occur during periods of relative speech continuity and their major function is that of marking the termination of grammatical units, which means that they point both backwards and forwards. Hesitation pauses, which are often defined, rather subjectively, as silences of unusual length (see Henderson 1974: 121), are often longer than juncture pauses and they tend to be filled; they may coincide with juncture pauses. One of the features with which pausing is connected is the length of the phrases and this, for its part, is interrelated with the question of phonological phrases, which are characterized by the existence of one or more phonological words, a pitch contour and rhythmical structure, and terminal junctures. As early as 1907, Lipsky pointed out that pauses were more common after long subject noun phrases than after shorter ones. Fonagy and Magdics (1960) found out that the length of phrases (number of words) correlates positively with the rate of utterance, and

Bierwisch (1966) showed that the rate of segmentation per word boundary decreases as the rate of utterance increases. According to Martin et al. (1971), the division into phrases depends on the length of total utterance and that of its syntactically defined constituents; there is a tendency to place junctures between the major syntactic constituents but the junctures need not necessarily group the sentence elements as predicted from the constituent analysis (see Martin 1970); junctures are more common after and before long syntactic units than short ones. Martin et al. (1971) also noticed that speakers tend to minimize segmentation but that there is more of it if the sentence length increases. They point out (Martin et al. 1971: 230) that the constituent analysis as such may not be of value for the analysis of pausing because the pause pattern follows certain phenomena of readjustment in the surface structure. Brown and Miron (1971) have shown that 64 per cent of the pause variance can be explained by reference to syntactic analysis (including IC analysis, stochastic information analysis and deep structure analysis).

It has been found out (see, eg., Henderson 1974) that periods of hesitancy often precede, and predict, periods of relative speech continuity. There seems to be a clear difference in the nature of the gaps within hesitant periods, on the one hand, and periods of speech continuity, on the other, while the transfers from 'continuous' to 'hesitant' and from 'hesitant' to 'continuous' speech cannot be categorized according to the grammatical/non-grammatical parameter. This means that hesitation pauses need not follow the constituent analysis of the sentence. Henderson (1974: 122) concludes that "it is during periods of hesitancy that decisions concerning the semantic content of subsequent speech are likely to be made". For a long time there has been evidence of the hesitation pauses being connected with the beginning of the units of encoding (see Lounsbury 1954) and of the hesitation pauses and the lexical elements following the pauses being interrelated

(see Tannenbaum et al. 1965). The words following hesitations are less predictable than the words occurring in periods of relative speech continuity. According to Martin and Strange (1968), the syntactic-semantic structure precedes the choice of words and the latency between intention and individual word selection depends on vocabulary access, the number, order and complexity of the syntactic and semantic selection rules governing the choice of each word, which means that a great deal of weight is put on decisions preceding words of high information content.

Jaffe et al. (1972) are of the opinion that speech and silence are not causally related. They think that the durations of both are separately determined by non-overlapping sets of constraints, whose patterns depend on changes in the internal state of the speaker and the social context in which he finds himself. According to them, too, hesitation reflects the speaker's difficulty with lexical choices. Tannenbaum et al. (1967: 208) are of the opinion that "some hesitation phenomena are symptomatic of cognitive uncertainty", especially when the speaker is making decisions on semantic problems. According to Tannenbaum et al. (1967: 208-209), an increase in the cognitive demands of the message results in an increase in the ratio between lexical and functional words as well as in silent pauses, which "account for the slower encoding rate and the greater total encoding time". When the speaker has less to say and, therefore, fewer choices to make, his messages "are shorter in length and take less total time, and the decrease in the amount of decision-making results in fewer silent hesitations".

An attempt to evaluate fluency by reference the amount of hesitation pauses involves, however, a vicious circle: an utterance which includes a great number of hesitation pauses is considered non-fluent but the concept of hesitation pause is as subjective and inaccurate as the concept of fluency as a whole. A pause in speech can be classified as hesitation only on the basis of subjective observation from the part of the listener and his criterion for classifying pauses is

based on his impression of fluency: pauses which break the smooth continuity of speech are classified as hesitations while all other pauses are classified as 'fluent pauses'.

There is plenty of evidence for the fact that the rate of delivery of spoken messages varies a great deal both within and among speakers (see Broen and Siegel 1972). Factors which seem to affect it are the degree of linguistic processing required, the emotional state of the speaker, voluntary control exercised by the speaker, and various situational factors of stress and anxiety (for research results as concerns the rate of speech, see Lehtonen 1978).

One of the problems about fluency is the question of the interrelationship between the information content of the message and the actual spoken form which the message is given in speech. Is a speaker who has very little to say but who is able to speak for long periods to be considered a fluent speaker or not? This problem includes taking a stand towards certain redundant or cognitively empty expressions in regular use, such as well, you see, I know, I mean, sort/kind of, let me tell you, etc. It is also connected with the general problem of redundancy: what may be redundant as concerns the information content of the message may be extremely valuable for the processing of the information by either the speaker or the hearer. Crystal and Davy (1975: 85), who emphasize the smoothness of continuity in discourse, mention several of these as factors which help in building up a smooth discourse pattern. In many cases, phrases like these may however be used as a disguise for the hollowness of the message: the speaker has nothing to say but he is 'fluent' in the sense that he is capable of filling the vacuum with an acoustic noise. Many of these phrases are counted as disfluencies in an analysis of Johnson's type (Johnson 1961: 3), but a native speaker's assessment might often be quite the reverse despite the absence or scarcity of cognitive content. Phrases and idioms like these are

often necessary for the speaker to keep the channel open, so that he has more time for organizing his thoughts. Many of these also fall within the area of conversation management devices, which govern the turn-taking in conversation and can be used by the speaker and the hearer to fulfil certain textual and participatory roles (see Ventola 1977: 76ff.). Repetition[1] and reformulation after false starts is often necessary before the speaker finds the expression or complex of expressions which suits his purpose best. Occasionally, certain indefiniteness of formulation may serve as a means for sounding the opinions of the hearer (see also Rivers 1968: 191).

Fluency is not something that can be defined absolutely without a reference to the context where the text occurs, and it could best be described as a continuum stretching from very formal situations where there are no allowances as for the continuity and unbroken character of the speech-signal to highly informal situations in which complete and unbroken utterances tend to be an exception rather than a rule (see, eg., Crystal and Davy 1975: 87). Crystal an Davy connect this phenomenon primarily with the time element: "The 'informality' of conversation is identified primarily by the absence of external pressures to talk along predetermined and rigid lines ..." The external pressures include, it is often forgotten, also those present in the hearer, of which the speaker may or may not be conscious, and the ultimate statement as to what is fluent and what is not is the hearer's. The speaker may himself be conscious of the non-fluency of his utterance and even feel some anxiety about it, but he may as well be totally ignorant of how the hearer is reacting to his utterances. He does not notice that he is pausing in places where the pauses irritate the hearer, he does not notice the fact that he is not completing his sentences,

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[1] It is to be remembered that repetition may serve some specific purposes such as intensification and emphasis (see Persson 1974).

that he is making false starts, rephrasing his sentences, trying to seek the right word 'aloud' and so on. Such 'disfluencies' are not a problem of foreign language teaching alone; on the contrary, it is even possible that features of speech performance which are regarded as disfluencies in a speaker's mother tongue may be accepted in his foreign language performance as elements associated with a foreigner's speech. The situation is the most difficult with such speakers of either the mother tongue or the foreign language who are conscious of their disfluency and who, as a result of this consciousness, are prevented from finding in communicative situations such expressions as will help them to avoid hesitation and the results arising from awkward hesitation.

Internal pressures of the speaker may be of great importance as a factor influencing fluency and disfluency. Broen and Siegel (1972) found out experimentally that the most important factor is not the situation itself but the subject's evaluation of what is required in the situation. They came to the conclusion that "if the subject regards /the situation/ as one in which it is important to speak carefully, he will be relatively fluent". For Broen and Siegel, the markers for disfluency were the use of interjections and repetitions, but they rightly point out that if other criteria, such as pauses for instance, had been considered, the results might have been slightly different. Anyhow, they call attention to an important parameter affecting the fluency of speakers. Findings like this seem to correlate quite well with results which seem to indicate that people can speak, if they find it necessary, for long periods with "almost total fluency" (Martin and Rangaswamy 1972: 366). This is interpreted to mean that there is no 'normal' fluency or non-fluency.

Fluency and foreign language teaching

Fluency is regularly mentioned as one of the goals for FL teaching. Mostly the word is used rather loosely without any specific reference (see, eg., Rivers 1968: 167), obviously to describe the way in which native speakers use their language. The fluency of native speakers is often given as a model of achievement (see, eg., Harris 1969: 82; Clark 1972: 93, 123). Clark, for instance, states that at this level speech "is natural and continuous. Any pauses correspond to those which might be made by native speakers". Stumbling, pauses, rephrasings, unfinished utterances and silence are considered features of non-fluent speech. In Clark's system of marking, the scales for pronunciation, vocabulary and structure are separated from fluency. The goal for fluency as correlated to the native-speaker performance is not much helped by definitions such as that by Lado (1961: 241), according to which "the factor of oral fluency becomes simply the ability to produce at a normal rate of speed the words and structures of the language in the stress and intonation patterns of that language", because what such a definition says is that a foreigner should speak the language like a native speaker. A definition like this is better than Clark's classification of the criteria for testing because Lado does not separate fluency to cover pauses, rephrasing and similar features only but takes it to mean the whole performance in the target language. Even if we would not want to discuss the usefulness of a native-like performance as a FL teaching goal, definitions of this kind do not help much because of the subjective nature of the interpretations given for "normal rate". Even the words and structures considered "normal" may be open to criticism. In most cases, statements like this refer to the norms of written language whereas informal conversation abounds in "loosely co-ordinated constructions, incompleteness, ungrammaticality, stylistic vacillation, and many other linguistic 'errors'" (Crystal and Davy 1975: 87).

Among various parameters of disfluency, pause, interjections, and repetition have been the favourite ones (see above and also Martin and Rangaswamy 1972: 360). Conversely, this gives the impression that speech without hesitation, repetition, and interjections is fluent and characteristic of normal native-speaker behaviour, which is obviously wrong. Rivers (1968: 168) is quite right in pointing out that the omission of features like these as well as of various clichés, tags, expletives and exclamations results in the stepping up of the rate of speech but "it would be beyond the capacity of the listener-speaker to assimilate much quick-fire conversation". Di Pietro (1970: 50) also points out that the analogy with the native speaker, which is offered as a model breaks down because phenomena like stuttering, hesitating and not completing sentences are common in the unedited and unrehearsed speech of native speakers: "... we teachers expect our foreign students to utter only grammatical sentences while allowing our fellow speakers of English all kinds of liberties with the language." The research on various phenomena connected with disfluency as reviewed above, therefore, is useful for the definition of the parameters necessary for the observation of the performance of native speakers.

The kind of fluency which is referred to by Lado should be approached through the entire communicative behaviour of a foreign-language speaker (see Sajavaara 1977: 22). We have elsewhere (Lehtonen, Sajavaara and May 1977: 20-22; Sajavaara 1977: 23) listed a number of parameters which we think are important elements in a language speaker's fluency. The factors have been divided into linguistic, psychological, and sociolinguistic. This is a revised version of the list:

Linguistic factors:

(1) phonological and phonetic factors: absence of phonetic and phonological errors, also as concerns suprasegmental features, variations in performance, mastery of perceptional cues in production and reception (see Lehtonen 1977);

(2) syntactic factors: absence of syntactic errors; capacity of producing new utterances to fulfil communicative needs;
(3) semantic factors: awareness of the interrelationship of syntax and semantics as well as of language and the world outside;
(4) lexical factors: mastery of the vocabulary necessary for language-behaviour in a given situation;
(5) textual factors: awareness of the problems of cohesion, ellipsis, deixis, etc.

Psychological factors:

(1) absence of phonological distortion brought about by increased breathing rate and noise caused by tension;
(2) absence of rephrasings, repetitions, pauses (either juncture or hesitation) and interjections not accepted by native speakers (which in most cases means that they affect communication).

Sociolinguistic factors:

(1) awareness of social judgements necessary for the production of acceptable utterances in a given situation;
(2) sensitivity to various sociolinguistic, cultural and environmental features including those which are based on interpersonal relationships;
(3) correct interpretation of the varieties of language and functional values of utterances;
(4) ability to make the necessary judgements and decisions within the time constraints of the communicative situation, which are set by the speaker/hearer interaction and certain other external criteria; the speaker/hearer interaction for its part is conditioned by a complex of internal (personal and non-personal) and external parameters (time is important in this respect only and this factor is, for instance, superimposed on the length of the sentences and, in this way, on the ways in which the cognitive content of the message can be expressed).

All these factors contribute to the impression of fluency, but it must be remembered that what is fluent in one situation may not be considered fluent in another. It is wrong to assume that a speaker's performance would be any different in a foreign language from that in his native language as regards various personal characteristics: we must make an allowance for hesitation, rephrasing and pausing of various kinds.

In studying fluency, we must always remember that in most cases communication is a two-way phenomenon, and a speaker's performance is conditioned by what the hearer does or does not do, ie. by the linguistic and other cues which the hearer receives from the speaker and produces in connection with the communicative act. In many cases, performance which may be considered non-fluent does not originate in the speaker at all: it may be a reaction to what the hearer is doing simultaneously. The speaker may have to readjust his message in mid-sentence either to make himself understood or to get the reaction he wants to bring about. Non-fluency may also be due to what the previous speaker has said.

Most of the research on disfluence reviewed above was carried out in the 1960's before the beginning of modern textlinguistics and discourse analysis. As a result of recent research we have today access to much more detailed analysis of the factors in communicative situations which influence the form the use of language assumes. According to Hasan (1973: 275-280; see also Ventola 1977: 32ff.), the register used is determined by what is called the contextual construct consisting of the subject matter of discourse (language about something, affecting lexical choices in particular), situation-type (nature and purpose of the transaction), participant roles (affected by the situation-type), mode of discourse (overall purpose of the discourse), and medium of discourse (spoken/written). When the construct is applied to a situation, we get its concrete representation, which

Hasan calls the contextual configuration. As far as a non-native speaker's language is concerned, this contextual construct remains practically unchanged from what it means to the native speaker: the only major difference seems to be in participant roles (it is true that in most cases the variety of situation-types is more restricted for a non-native speaker).

In a situation, a person normally assumes several roles. In addition to social roles, they include textual and participatory roles (Hasan 1976: 9). The textual roles are those of the speaker and the hearer and they are inter-changeable in most cases. The participatory roles are those of the initiator and the respondent. For FL speakers the social roles are rather restricted: in most cases the typical set-up is a stranger talking to a stranger and most of the social criteria found in connection with L1 do not apply. A greater part of the social roles are levelled down to a foreigner's role, which also means that native speakers' expectations are quite different from what they are towards a native speaker. A foreigner may, for instance, be given more time for the formulation of his message. The normal conversational mechanisms which govern the interchange of textual roles, ie. the turn-taking system, for instance, do not obviously function the same way as they function between native speakers (see, eg., Ventola 1977: 76ff.): a native speaker talking to a non-native speaker is more prepared to wind up the non-native speaker's sentences during and after hesitations and pauses and to give reformulations.

A non-native speaker seldom achieves a symmetrical position with the native speaker (see Ventola 1977: 36), which is not an uncommon situation between native speakers either. A non-native speaker talking to a native speaker retains, in most cases, the participatory role of the respondent; he remains less active and is willing to cede the role of the initiator to the native speaker. It is to be expected that a non-native speakers's role as a foreigner and a respondent will influence reactions to what are described above as parameters of fluency.

Preliminary test

The preliminary test to acquire experimental material for the study of fluency was carried out in English only; the material should be contrasted to material produced by the same Finnish informants in Finnish. There were two groups of informants: (1) ten university students of English who had done at least three years of English at the university level and acquired the language proficiency which is required for teaching English at the comprehensive school; and (2) two native speakers of English who teach English at the university level (they were both married to Finns and had spent several years in a Finnish-speaking environment).

The test consisted of a short oral description of cartoons. The informants were given a short summary of the cartoon before they were asked to narrate the contents. The idea in giving the summary was to try to make the narrations more homogeneous in their contents. There were five cartoons called 'Herbert' and four called 'Andy'. Both of the native speakers did all the cartoons, while nine of the Finns did 'Herbert' and six did 'Andy'. So, the test produced 69 texts by Finns and 18 by native speakers of English. For the present paper, only the 'Herbert' narrations were analysed, ie. 45 by Finns and 10 by native speakers of English. One of the native speakers was much more productive than all the other informants; his texts run to a length which is four or five times that of the Finnish informants. The results show, however, that this does not undermine the test. The number of native-speaker informants was too small for generalizations but this test can be used as an experiment to direct future studies in this field.

Narration is typically a text where the speakers are expected to produce fairly well developed ideas expressed in full sentences but pauses and hesitations are also allowed. The test situation is not formal but it seems

that the informants expected the situation to require a variety of language which was formal rather than informal, but not so formal as public speech, for instance. This means that the informants obviously exercised some control over the language-behaviour as compared to normal everyday conversation. As found out in research on disfluence, speakers can influence their speech a great deal; when the situation is expected to require it, speakers are able to go on talking for long periods without hesitation and other features of 'disfluency'.

In this test, errors were disregarded. This concerns all levels of linguistic analysis, including various features of textual and style analysis. The time which the informants spent on producing each text (sometimes called the 'encoding time') was recorded (and the results can be found in the appendix) but it was considered to be of secondary importance in narration because the sociolinguistic contraints of interaction, which may impose temporal restrictions, do not normally affect texts of this type (see below the discussion of message length). The words-per-minute ratio, which is sometimes taken to be one of the parameters of fluency, was not computed (for the rate of speech, see Lehtonen 1978).

The test was originally designed as an attempt to study pauses in the English speech of Finns as compared to those in the language of native speakers of English. This initial starting-point imposed certain restrictions on what kind of features could be taken into account. The following features were observed:

Organisation of the message:	Message length (number of words) False starts Imprecision Lexical density (functional/lexical ratio) Lexical variation (type/token ratio)
Continuity factors:	Sentence length (number of words) Clause length (number of words) Subordination index Number of pauses: filled and unfilled

Length of units between pauses
(number of words)
Incomplete phrases
Revisions and repetitions
Extraneous words and phrases
Broken words
Prolonged sounds

For many of these parameters the results are only preliminary, and the small number of informants as well as their relatively homogeneous level of achievement makes it rather difficult to draw definite conclusions from the present material. The results should therefore be considered only tentative.

Organisation of the message

Message length. - Despite the fact that the informants were asked to read a short summary of each cartoon before the beginning of the narration, there is quite a lot of individual variation in the message length. The average length of all the texts is 95 words; if, however, the texts by one of the two native speakers (I 10)[1] are disregarded, the average is only 73. The texts by I 10 run to the average length of 315 whereas those by the other native speaker (I 11) remain below the lowest Finnish average, which is 59 words, at 56 words. The highest Finnish message length average is 111 words (I 3).

The lengths of the texts produced by one and the same speaker vary a great deal. The longest text by I 10 was 437 words and the shortest 254 words. The longest and the shortest text by I 3 (the highest Finnish average) were 177 words and 72 words respectively. The nature of the cartoon seems to affect the length of the text, which is quite obvious: the texts for H 3 are the longest for eight informants and those for H 4 are shortest for nine informants.

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[1] I = informant, H = Herbie.

The variation in the length of the text is a piece of evidence of the differences in the problem-solving capacity of individuals: each individual approaches the task of having to describe an event in a different way but the variations within individuals show clearly that the task also affects the results. In general, the 'productivity' index depends greatly on the situational motivation of the speakers to participate in the discussion. The present test situation was created so that there would be a restricted amount of free play, and the written summary which the testees were asked to read before narration was supposed to function in this capacity. The narration was to be kept within the broad limits of the written summary, because it was thought that this type of test would be better in measuring the speakers' linguistic competence than a free-delivery type of test, which rather tends to measure the testees' overall imaginative and expository capacities.

This test did not prove that a native speaker is more 'wordy' than a non-native speaker. It remains to be studied whether one and the same speaker's message lengths differ in the mother tongue and the foreign language.

False starts. - False starts are an indication of the fact that the speaker notices that his original plan does not fit what precedes or comes after the passage concerned. The nature of the task obviously affects the way the speaker makes his original plan; a public speaker, even if he does not write a manuscript, programs himself carefully. In the present material, false starts are rather infrequent, which is consistent with the hypothesis that this kind of narration requires a certain level of formality.

There are a number of syntactic false starts of the type there is/there are drops of ink (I 2/H 5), then they/when they have got (I 3/H 3), a man/there is a man (I 3/H 4), to his apartment a balcon(y)/ ym / he has a balcon(y) (I 6/H 2), and from this pen / and this pen is a leaking (I 11/H 5), or false starts connected with the processing of information

such as his boat is / or he has already lots of big fishes (I ö/H 1). The total number of instances which can be listed as false starts is 12 (3 of them occur in texts produced by native speakers).

Imprecision. - Imprecision is a feature which is rather controversial as regards fluency. The speaker may have several reasons for using vague expressions and formulas: he may not have a clear idea of what to say; he does not want to say it directly; he has nothing to say; he cannot find the proper expression. It could be hypothesized that a person who speaks more (produces longer texts) is more often faced with this kind of situation. It could also be expected that a foreigner would have to resort to imprecision more often than a native speaker.

In the present material, the number of the instances which can be listed as those of imprecision was only 13, eg. and looking at him and so on (I 10/H 1). Nine of them occur in texts by I 10, who is a native speaker and produced long texts. The remaining four instances are in texts by three Finns. Since some amount of imprecision could be expected in texts of this length, the non-existence of imprecision formulas in most texts by Finns may be explained by the fact that they have never been taught how to be imprecise in English or that their idea of acceptable text in test circumstances does not allow for imprecision.

Lexical density. - Lexical density is the ratio between function words and lexical words[1]. All lexical items were counted irrespective of whether they were correct or not.

The difference between the Finns' overall lexical density 0.44 and that of the native speakers 0.47 is not decisive. What is interesting is that the native speakers used proportionately more function words than the Finns and

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[1] Words which were counted as function words were those listed by C.C. Fries, The Structure of English, New York: Harcourt, 1952, 87-104.

that both of the figures are clearly above the proportion suggested by Fries (1952: 104), which is roughly 0.30-0.35. The two native speakers have the densities 0.44 and 0.49 (I 10 and I 11); four Finns have densities lower than the lower native-speaker one, varying between 0.40 and 0.43, and two Finns reach to the top 0.47,

Without further studies it is impossible to tell whether the result which is contrary to our expectations is a mere coincidence or due to the restricted native-speaker population. The result is in agreement with the fact that too high a lexical density would mean too heavy an information content in the message, which in some cases might make the processing of the information quite difficult. It may be that a native speaker is more sensitive to the acceptable level than a non-native speaker.

Lexical variation. - Lexical variation is also called the type/token ratio and means the ratio of separate lexical words to all words. The Finns vary between 0.31 and 0.43, the mean being 0.35. The more productive native speaker has a ratio of 0.29, which is well below the Finnish mean, while the other native speaker has the ratio 0.37. There seems to be some correlation between lexical variation and message and sentence length. The lowest lexical variation ratios are those for informants 2, 3, 4 and 10, and these same informants are found at the top of the list for message length and sentence length; as we will see, they are also the most prominent as concerns incomplete phrases, revision and extraneous expressions. The Finn who has the shortest message length has the highest lexical variation ratio 0.43. So, message length and lexical variation seem to be conversely related. This result may seem controversial but it need not necessarily be so: long messages seem to include a greater amount of repetition. The low ratios may be partly explained by the fact that most of the informants who had low variation ratios have high lexical densities, which means that they have more function words. But when we calculated the ratio

of separate lexical words to all lexical words the same four informants are found among those with the lowest ratios, the native speaker (I 10) at 0.52 and the Finns between 0.56 and 0.62, the other Finns varying between 0.58 and 0.72 (I 7). The other native speaker has the highest ratio 0.74.

Because of the rather controversial nature of the results of this test, lexical density and lexical variation did not provide much valuable information. It is to be expected, however, that tests with learners at lower levels of proficiency might produce different results.

Continuity factors

Sentence length. - In this text the sentence length was calculated as the number of words between potential locations of periods in the utterances; the appearence of coordinating conjunctions was considered to be a signal for the continuation of the sentence.

The sentence length varies a great deal. The personal means vary between 11.6 words (I 7) and 69.7 (I 9) for the Finns and 22.3 (I 11) and 34.1 (I 10) for the native speakers. Sentence length seems to be an idiosyncratic feature above all: some speakers tend to use coordination excessively when they are narrating. There is also a certain cumulative effect: the number of words per period is higher in later texts by one and the same speaker. By eight informants (including native I 10) the first text has the shortest sentences while each informant's longest sentences are found in texts 3 to 5. The Finnish informants had more variation in their texts; for I 4, for instance, the average lengths of sentences vary between 20 words and 72.5 words (a reverse case is I 7, whose respective figures are 8 and 16.7). The native speakers are more consistent in this respect; there is only one text by a native speaker (I 10/H 4) where the average sentence length is above 35 words as against 11 texts produced by Finns. With the exception of this text, the native speakers vary between 10.6 and 34.5.

A tendency towards short sentences is even more striking in the texts produced by the Finnish informants. A total of 22 texts have an average sentence length of less than 20 words, and there is only one text by a native speaker among them (I 11/H 2).

There is no direct correlation between message length and sentence length.

Clause length. - Clause length is the number of words in separate matrix and embedded clauses (only those with full verbs were counted).

There does not seem to be any direct correlation between sentence length and clause length, with the possible exception of H 1, where the shortest clauses are found alongside with shortest message lengths. The longest clauses are found in texts which have the longest message lengths, ie. H 3 to H 5. There is no clear evidence for a distinction between the Finns and the native speakers. The lowest and the highest averages for the former are 6.3 and 8.2 words (4.6 and 10.4 in individual texts) and those for the latter 7.4 and 8.4 (5.5 and 10.3) respectively. The overall average clause length for the Finns is 7.6 and that for the native speakers 7.9, which may be seen as an indication of a tendency for the clauses to be slightly longer in the English of native speakers. There are 19 texts with an average clause length of less than 7 words and only two of them are by the native speakers, but only two of the 11 texts with clause length average of 8.5 words or more are by the native speakers.

Subordination index. - The subordination index is the ratio of embedded clauses to all clauses. The average index for all the texts produced by Finns is 0.25, which means that every fourth clause is an embedded clause, while the same index for the native speakers is 0.36, which means that more than every third clause is an embedded clause. This difference seems to have some significance. However, the highest subordination index is that of a Finnish informant; it is 0.40 (I 9, who also had the highest average sentence length).

The indexes per text vary between 0 (three instances, all in texts by Finns) and 0.6 (I 9/H 5). The subordination index is normally higher in the later texts by each informant.

Number of pauses. - The pauses may be either juncture pauses, which may or may not correlate with the immediate constituent analysis of the sentences, or hesitation pauses, which may be either filled or unfilled. For the present paper it was not possible to carry out a thorough IC analysis of the texts but it is quite obvious that neither the native speakers nor the Finns speaking English follow such a division in their speech.

The pause/clause ratio gives us a rough estimate of the correspondence between IC elements and pauses. The overall pause/clause ratio for the Finnish informants is 2.2, which means that there are more than two pauses, on an average, per each clause. The native speakers' index is 1.3. The two native speakers differ from each other: I 10 has the index 0.8, which means that he does not even stop at all clause boundaries, and I 11 has the index 1.8. The Finns vary between 3.0 and 1.5.

The number of pauses also gives us the length of phonetic clauses in words, which seems to correlate to the pause index to a considerable degree. The lower the pause index is, the longer are the phonetic clauses. The overall phonetic clause length for the Finns is 3.5 words and that for the native speakers 7.3 words (the Finns vary between 4.9 and 2.8; the two native speakers have 9.9 and 4.7). It is evident that the Finns have more pauses in their texts; it is also possible that the within-informant variations are greater, ie. the non-native speakers are more easily affected by problems arising from what they have to say.

The number of filled pauses is rather regular, with a few exceptions. The number varies between 10-20 per cent of all pauses. I 3 has, however, 34 filled pauses among 111 pauses, while I 7 has no filled pauses at all. I 10, whose pause index is only 0.8, also has proportionately fewer filled pauses; their percentage is only 6 %.

Incomplete phrases. - Similarly to false starts, incomplete phrases are infrequent. The total number is only eight, and five of these instances are in the texts by I 10. The remining three are in the texts by informants 2, 3 and 4. All these four are at the top of the list of average message length and sentence length. It seems that speakers who produce longer messages also resort to incomplete sentences more often than others. These same informants also had 7 out of the 12 instances of false start.

Revisions and repetitions. - There are a total of 86 instances of revision or repetition, 25 by the native speakers (23 instances by I 10). Repetitions were not separated from revisions because their number was rather insignificant and in some cases it is rather difficult to make the distinction.

In some cases, the reason for the revision is fairly obvious from the text. In 13 instances the revision was due to an erroneous or indistinct pronunciation of a part of the message, eg. cut his hair and bear(d) [bɛə] while / beard / while two (I 1/H 3), is picked by a kirl / girl (I 2/H 2). This kind of revision is also found in the texts by native spakers, eg. starts to clip his [hiər] and b... hair and beard (I 10/H 3). In 17 instances the obvious cause for revision is syntactic: the original syntactic plan was not possible and the speaker winds the utterance back, eg. he begins to grow f... / grow a flower (I 2/H 2), and he's taken / he's been taken (I 4/H 3), where they are selling / or where they sell (I 9/H 5), the man / [ym] who whom they have (I 6/H 3). In 30 instances the speaker is either planning the continuation of the message (loses all his fishes and / and and // and all he / has got, I 2/H 1) or he notices that what he says does not exactly fit the contents of the cartoon (the policeman l...men look, I 2/H 3). Lexical hesitation or lexical correction is the reason in 23 instances (has climbed on the table in order to change... change a lamp (=bulb), I 2/H 3); he is barefoot / barefooted, I 4/H 3).

Extraneous words and phrases. - The number of extraneous words and phrases is quite high, totalling 50 instances (a total of 124 words being involved). Only eight instances occur in non-native texts and all the native-speaker instances in texts by I 10. All the eight non-native instances of extraneous words and phrases are in texts by informants 2, 3 and 4. Extraneous words and phrases include instances of of course, well, I guess, now, as they say, you (can) see, I think, sort of, never mind, anyway, I mean, okay, etc.

Broken words. - In most cases broken words are a result of similar processes as hesitation pauses. The total number of broken words in the test material is 17. Only three of the informants (4, 9, 10) have none.

Prolonged sounds. - There are occasional instances of prolonged sounds; the total number is six only. Their function seems to be roughly the same as that of broken words or some pauses.

Conclusion

By analysing features like the ones which have been analysed above, it is possible to work out an outline of the features which characterize native and non-native speaker performance. The number of native speakers tested here was much too small for reliable generalizations, particularly since the two informants happened to be quite far from each other as concerns several of the parameters concerned.

It could be assumed that on the basis of what fluency is generally expected to be, native-speaker performance should be characterized by relative speech continuity (few pauses outside junctures), non-appearance of false starts, revisions or failures to complete sentences, varied vocabulary, a rather elaborate sentence structure, precise expressions, and few extraneous phrases and words. It turned out that considering the criteria mentioned here

alone, the non-native performance was more native-like than the native performance. The only exceptions among these parameters were the number of pauses, which was definitely greater in non-native texts, and the subordination index, which was higher for natives despite the fact that the non-natives had longer sentences on an average. Otherwise, the native speakers produced a greater number of false starts, rephrasings, extraneous words, and instances of imprecision or incompletion. One-half of all the instances of false start, incompletion, imprecision, extraneous phrases, and repetition are in native-speaker texts, and two-thirds of the non-native instances are in texts by informants 2, 3 and 4. These same Finnish informants have a clause length which is more or less the same as that of the native speakers and their subordination indexes are high too, while their lexical variation indexes are low (0.31-0.33) and density ratios high (0.46-0.47), approximating those of the native speakers.

The next step in the tests should be the exposure of the various categories of non-native speakers to native-speaker criticism and tests to provide us with material about the informants' Finnish. The reason why non-native speakers attested fewer disfluencies (native speakers obviously have attained 'fluency' in the sense it is expected of non-native speakers at the highest level of performance) than native speakers in this test may be in that

(1) the non-native speakers assessed the requirements of the situation differently and they made a conscious effort to speak without obvious marks of hesitation;
(2) FL teaching aims at 'fluent' speech, ie. the model given to a FL learner is that of a normative grammar, often based on literary standards; there are no 'disfluencies' in such standards, and the students are, accordingly, never taught how to be disfluent;
(3) in the analysis of the test results, errors were disregarded, although they should be regarded as instances of 'disfluency' (in many cases the apparent continuity of the text is possible only through erroneous grammar or

the use of unacceptable lexis), and no attention was paid to various textual and stylistic features (non-native texts are often poorly organized and repetitive);

(4) individual variation, between and within informants, is great, and the results here may have been affected by the perhaps exceptional nature of the texts produced by one of the two native speakers.

The present material is sufficient for throwing a shadow of doubt above grading scales such as that by Clark (1972: 93), because most of the features suggestive of lower grades were found to be features in the performance of native speakers rather than in that of non-native speakers. Such features include "occasional stumblings or pauses at unnatural points in the utterance" (on the basis of the present material it is rather difficult to assess which the natural points are), "some definite stumbling but manages to rephrase and continue", "long pauses, utterances left unfinished", etc. Pausing, both juncture and hesitation, is also a rather ambiguous criterion. There is plenty of evidence for juncture pauses not coinciding with boundaries of surface IC elements (one of the two native speakers has the phonetic clause ratio of 0.76, which means that he did not even produce a perceptible pause at clause boundaries or periods where a pause might be expected). Hesitation pauses may occur almost anywhere and more research is needed as to the combined effect of hesitation pauses, revision, imprecision, and extraneous phrases.

The superfluous pauses which were found to be a feature of the Finns' way of speaking English might be explained as a feature which is derived from the way they speak Finnish (for pausing and glottalization in the Finnish variety of English, see Lehtonen and Koponen 1977). However, much of it could be explained by the fact that pauses and, possibly, repetition are the only ways which non-native speakers have to give themselves more time for finding the correct expression: they have never been taught how to behave when they are faced with such a problem, when they have to keep

the communication channel open but they have nothing to say or they do not know how to give expression to what they have to say. The speakers do not simply know how to adapt the communication strategies they have in the mother tongue to the situations which arise in the foreign language, and even if they knew what the right way of behaving in a certain situation would be, they have not got the verbal means to react in the proper manner. That is why, elements like this should be an integral part of any language course.

The material discussed here shows clearly that the term fluency should be given up in contexts where language teaching is dealth with unless it is defined carefully. Before any further conclusions can be drawn, we need

(1) more information about the features studied here in a greater number of texts produced by native speakers;
(2) more information about such features in L1 and L2 speech of the same informants;
(3) native-speaker judgements concerning the 'fluency' of various kinds of non-native performance;
(4) research on the impact of variation in the parameters studied on the comprehension (and non-comprehension) of messages;
(5) research on the functioning of these parameters at different stages of FL learning; and
(6) research on the functioning of these parameters in different kinds of communicative situations.

The conclusion reached here may sound rather controversial: teaching students how to be 'disfluent' makes them sound more native-like. Whatever fluency is it is not a variable which is open to either physical or grammatical means of measurement. It is also obvious that it is much easier to give an exact definition for 'disfluency' than for fluency. If being disfluent or non-fluent means that, according to the listener's intuition, the speaker's performance - or the flow of ideas as transmitted by the speaker's utterances - does not flow evenly and without

disruptions, fluency can be correlated to the general acceptability of speech, and as pointed out above, fluency is in this respect a concept which materializes on the basis of the listener's reactions to a speaker performance.

It would be a crude simplification of the real state of affairs to believe that fluency is simply a parameter of good language competence. A person who may govern the finest nuances and complexities of literary expression very skilfully may be disruptingly non-fluent in his speech performance, and another person whose vocabulary and command of structural options are rather restricted may be able to carry out fairly fluent communication by using his restricted means of expression with great skill. If fluency means, as it is understood above, that the communicative processes meet the listener's expectation, that there is a certain communicative fit in this respect, it is not necessary to pay attention to the correctness of grammatical structures and absence of grammatical errors as components of fluency: what is needed is an assessment of what sort of attitudes various elements in a speaker's performance trigger in the hearer.

Teaching fluency involves teaching the pragmatics of a given language, and in this respect there is not much difference in the mother tongue and in foreign languages. In the teaching of both it has been a badly neglected area. A fluent speaker commands the communicative strategies in the proper way, and this skill helps him to overcome the critical moments in the flow of communication, while most disfluencies are obvious consequences of various 'strategy failures' in the processing of communication. Even if fluency is above defined as being independent of the grammatical competence of the language learner, the lack of linguistic resources remains the most usual cause of disruptions, message reductions, and total abandonment of turns in discussion. For teaching fluency, two things should be combined: the words and their use, ie. the grammar and the pragmatics of the language.

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APPENDIX

Values for some tentative parametres of fluency in the texts produced by the informants of the pilot test (for further information, see the text):

			1 massage lenght	2 sentence lenght	3 subordin. index	4 lenght of phonol. clauses	5 pauses / clauses index	6 lexical density	7 lexical variation (type / token)	8 lexical word type/ token	9 pauses: silent	10 pauses: filled	11 revision/ repetition (inst.)	12 incomplete sentences	13 imprecision	14 extraneous passages	15 words in extr. passages	16 broken words	17 prolonged sounds	18 false starts	19 clause length	20 speech time (sec)	21 number of inter-ruptions OVER 200 ms in duration	22 'articulation time' (sec) (column 20 minus 21)
Finnish Student	MP	1	94	7.8	0.3	4.9	1.35	0.40	0.30	0.50	18	2	0	0	0	0	0	0	0	0	6.5	60	35	30
		2	65	6.6	0.1	4.3	1.50	0.40	0.32	0.54	12	3	0	0	0	0	0	0	0	0	6.5	49	30	22
		3	66	22	0.6	4.1	2.29	0.47	0.35	0.66	13	3	1	0	1	0	0	1	0	0	9.4	43	36	20
		4	33	16.5	0.4	5.5	1.20	0.52	0.45	0.94	4	2	0	0	1	0	0	0	0	0	6.6	24	15	10
		5	33	8.2	0.2	3.7	1.50	0.36	0.42	0.67	8	1	1	0	0	0	0	0	0	0	5.5	21	16	10
Finnish Student	JT	1	87	17.4	0.2	3.8	1.77	0.43	0.28	0.48	21	2	1	0	0	1	3	1	0	0	6.7	69	43	24
		2	69	23	0.2	3.5	2.22	0.39	0.36	0.60	18	2	3	0	0	0	0	1	0	0	7.7	55	35	21
		3	83	20.8	0.3	3.8	2.75	0.42	0.35	0.60	20	2	2	0	0	0	0	0	0	0	10.4	61	48	24
		4	37	18.5	0.4	3.1	2.40	0.54	0.35	0.76	10	2	2	1	1	1	2	0	0	0	7.4	49	20	12
		5	70	35	0.3	2.8	3.13	0.53	0.23	0.48	24	1	2	0	0	0	0	0	0	1	8.8	47	40	19
Finnish Student	HH	1	124	17.3	0.1	2.9	2.12	0.41	0.34	0.57	25	11	0	0	0	1	2	0	1	1	6.1	69	43	25
		2	112	22.4	0.1	2.6	2.87	0.44	0.29	0.50	37	6	1	0	0	0	0	0	0	0	7.5	83	58	26
		3	177	25.3	0.3	3.1	2.90	0.45	0.28	0.50	49	9	7	1	0	0	0	1	0	1	8.9	116	73	46
		4	72	72	0.3	2.6	3.50	0.50	0.33	0.67	26	2	1	0	0	0	0	1	0	1	9.0	53	32	16
		5	90	45	0.5	2.4	3.36	0.49	0.33	0.57	31	6	0	0	0	0	0	1	0	0	8.2	57	45	20
Finnish Student	SPi	1	80	20	0.1	4.0	1.33	0.45	0.35	0.64	16	4	0	1	1	2	2	0	1	0	5.3	72	40	23
		2	72	72	0.2	4.5	1.45	0.43	0.33	0.59	14	2	0	0	0	0	0	0	0	0	6.6	55	23	20
		3	145	72.5	0.3	4.4	1.74	0.47	0.28	0.52	28	5	6	0	0	0	0	0	0	1	7.6	142	61	51
		4	62	20.7	0.3	6.2	1.29	0.48	0.39	0.74	8	2	2	0	0	1	7	0	0	0	8.9	44	20	17
		5	58	58	0.2	5.3	1.83	0.52	0.29	0.61	11	0	0	0	0	2	3	0	0	0	9.7	41	19	14

Finnish Student	MV	1	74	10.6	0.1	2.5	1.88	0.39	0.32	0.52	29	1	2	0	0	0	0	1	1	0	4.6	60	37	22
		2	55	11	0.3	2.6	1.91	0.31	0.40	0.58	20	1	2	0	0	0	0	1	0	0	5.0	40	24	16
		3	81	13.5	0.2	3.1	2.36	0.41	0.33	0.56	22	4	3	0	0	0	0	0	0	0	7.4	60	30	23
		4	57	28.5	0.3	2.9	2.50	0.44	0.40	0.72	19	1	2	0	0	0	0	1	0	0	7.1	44	24	16
		5	73	24.3	0.3	3.0	2.40	0.44	0.33	0.59	23	1	2	0	0	0	0	1	0	1	7.3	59	29	19
Finnish Student	SP	1	62	6.9	0	3.3	1.73	0.37	0.39	0.62	17	2	0	0	0	0	0	2	0	0	5.6	36	23	20
		2	83	16.6	0.3	3.6	1.64	0.40	0.34	0.48	22	1	1	0	0	0	0	0	0	1	5.9	54	31	28
		3	91	30.9	0.5	3.1	2.64	0.44	0.24	0.43	26	3	5	0	0	0	0	0	0	0	8.3	64	41	31
		4	56	14	0.2	2.7	3.50	0.46	0.39	0.73	19	2	0	0	0	0	0	0	0	0	9.3	38	23	17
		5	63	10.5	0	2.6	2.67	0.44	0.35	0.63	24	0	0	0	0	0	0	0	1	0	9.0	40	26	21
Finnish Student	SJ	1	70	8.8	0.1	3.3	1.91	0.39	0.40	0.65	21	0	1	0	0	0	0	1	1	0	6.4	53	22	19
		2	59	8	0.2	3.7	1.78	0.39	0.36	0.58	16	0	0	0	0	0	0	2	0	0	6.6	52	28	17
		3	80	13.3	0.4	3.1	2.36	0.43	0.38	0.65	26	0	2	0	0	0	0	0	0	0	7.3	52	34	20
		4	44	11	0	3.1	2.33	0.36	0.59	0.93	14	0	0	0	0	0	0	0	0	0	7.3	42	18	10
		5	50	16.7	0.2	3.6	2.33	0.48	0.40	0.77	14	0	0	0	0	0	0	0	0	0	8.3	51	25	13
Finnish Student	EK	1	68	13.6	0.2	3.1	2.00	0.44	0.34	0.61	22	0	1	0	0	0	0	0	0	1	6.2	52	29	23
		2	80	16	0.2	3.3	2.00	0.45	0.30	0.55	21	3	3	0	0	0	0	0	0	0	6.7	48	28	22
		3	103	51.5	0.1	2.7	2.71	0.52	0.24	0.71	36	2	4	0	0	0	0	1	0	0	7.4	79	44	43
		4	36	36	0.2	4.0	1.80	0.47	0.42	0.79	8	1	0	0	0	0	0	0	0	0	7.2	22	14	9
		5	85	21.2	0.1	2.6	2.54	0.45	0.24	0.62	29	4	1	0	0	0	0	0	0	0	6.5	62	40	20
Finnish Student	PiK	1	65	21.7	0.3	2.7	2.67	0.42	0.40	0.68	23	1	0	0	0	0	0	0	1	1	7.2	50	29	23
		2	98	98	0.4	2.9	2.43	0.40	0.76	0.63	33	1	1	0	0	0	0	0	0	0	7.0	77	44	32
		3	108	108	0.2	3.4	2.29	0.46	0.35	0.66	30	2	1	0	0	0	0	0	0	0	7.7	86	45	38
		4	57	57	0.5	3.6	2.00	0.49	0.40	0.79	15	1	0	0	0	0	0	0	0	0	7.1	38	18	18
		5	64	64	0.6	3.4	2.78	0.47	0.38	0.71	18	1	2	0	0	0	0	0	0	0	8.0	45	23	20
Native Speaker	AD	1	327	23.4	0.3	9.1	0.66	0.46	0.34	0.32	32	4	3	0	3	8	21	0	0	0	5.5	114	44	87
		2	437	33.6	0.4	11.5	0.76	0.37	0.24	0.39	37	1	7	2	3	12	38	0	0	2	8.7	—	—	—
		3	276	34.5	0.5	8.4	0.89	0.46	0.32	0.59	29	4	8	0	0	8	14	0	0	0	7.5	108	43	81
		4	254	50.8	0.4	10.2	0.78	0.46	0.28	0.52	19	6	2	2	2	10	23	0	0	0	7.9	—	—	—
		5	283	29.3	0.3	10.1	0.72	0.45	0.28	0.50	24	4	3	1	1	4	9	0	0	0	7.3	112	36	74
Native Speaker	AP	1	51	25.5	0.3	5.7	1.13	0.53	0.35	0.75	9	0	0	0	0	0	0	0	1	0	6.4	21	11	13
		2	58	10.6	0.3	4.4	1.71	0.40	0.40	0.66	11	1	0	0	0	0	0	0	0	0	7.6	—	—	—
		3	72	24	0.1	5.1	2.00	0.47	0.35	0.66	11	3	0	0	0	0	0	0	0	0	10.3	41	15	23
		4	40	20	0.5	4.4	2.25	0.50	0.42	0.85	9	0	1	0	0	0	0	0	0	0	10	—	—	—
		5	13	31.5	0.5	3.7	2.13	0.54	0.30	0.79	15	2	1	0	0	0	0	1	0	1	7.9	39	22	21

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TOWARDS A REDUCTION OF TRANSFER FAILURES IN SECOND LANGUAGE ORAL SKILLS

Performing efficiently in a real-life situation implies a threefold transfer on the part of the foreign language learner.

- transfer of linguistic competence in the second language (L2),
- transfer of heuristic, problem-solving strategies linked with the particular language skill concerned (indicating how to tackle each phase of the encoding or decoding process in consideration of the specific character of the situation),
- transfer of interactive techniques.

This threefold transfer which, I would suggest, makes up communicative competence, has to be effected in all language skills, whether written or oral, but obviously it is in the latter that it raises most problems owing to the extreme complexity of variables and to the time constraints inherent in oral communication. This is why I have chosen to analyse here how this process could be helped in the context of listening comprehension and oral expression.

Various attempts at solving this problem have been made in the past few years.

By orienting language teaching towards the acquisition of communicative competence, the functional approach, along with the use of authentic data, has already contributed to reducing the gap between learning and actual use. Still, by itself, it cannot ensure transfer because it does not

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sufficiently take into account the various mental operations entering into play in these processes (where various types of inhibitory factors are to be met in the form of psychic inertia, misconception of what is to be effected, etc...)

On the other hand, the light thrown upon the encoding and decoding processes by psychological, neurophysiological, and of course more specifically by psycholinguistic research, has enabled us to isolate a number of sub-skills which, if activated, can facilitate transfer. The limitation attached to this approach, however, is that is has so far concentrated on the verbal element in speech, to a great extent leaving aside extra-linguistic conciderations such as total body communication and the social context of interaction.

The thesis which I shall try to support and illustrate in this paper is that if a solution to the problem of transfer failures is to be found, it may be in an integrated view of these two approaches - sociolinguistic on the one hand, psycholinguistic on the other -, and to be more precise, in the integration of a sociolinguistic model of interaction into a widely accepted psycholinguistic model of decoding and encoding. And this integration can assume at least the three following aspects:

1. Correcting, in view of what is pragmatically necessary and sufficient for communication, current misconceptions of oral skills which have an inhibitory effect on the mental operations involved and are thus responsible for transfer failure, if not communication breakdown;
2. Developing in the learner a constant process of inductive reasoning which may help him arrive at a working categorization both of problems and of solution units, and thereby enable him to adapt himself to necessarily variable configurations of situational cues;
3. Reducing psychic inertia by giving the learner "specific practice in the various types of operations he must perform almost automatically", as was judiciously suggested by Wilga M. Rivers (1971: 129), but integrating into such a pedagogical framework the sociolinguistic elements which need to be taken into account in an interactive situation.

Here are a few indications as to how these three objectives could be attained in the teaching of oral skills. I shall deal very briefly with the first two, as they merely

set conditions on the third and most essential one by showing respectively to what attention should be essentially directed and what form training should take in practice.

1. Correcting misconceptions of oral skills

Second language learners usually set themselves goals which are both too high and inappropriate in oral skills, owing to a confusion between two distinct aptitudes in the case of perception and, in the case of production, owing to the use of an inadequate model.

To take first of all the case of listening comprehension, L2 learners currently assume that correct global comprehension is always narrowly dependent upon the detailed discrimination of segmental elements, which leads them to be disturbed by the slightest identification problem and then resort to chance skimming.

Obviously global comprehension requires both less and more than that. Less, owing to the condition of coherence which, according to Oswald Ducrot (1972: 87), all discourse tends to satisfy and which entails a given amount of redundancy in the message. It thus provides the listener with both a guide-line and numerous props, provided his attention is not focussed on details. So even in L2, a certain amount of skimming can and should take place, which is directly correlated with the degree of redundancy of information-bearing elements, not only at the segmental but at all informative levels. And it is only when a) there is a specially high density of informative elements, and b) these informative elements are carried only by the verbal channel, that discrimination of segmental elements needs to be fine-grained. Now it is true that these two features characterize most materials selected in the traditional teaching of listening comprehension, which has laid an almost exclusive stress on the cognitive content of oralized speech and may thus be held partly responsible for this view.

On the other hand, in interactive discourse, there is a lot more to be grasped than merely the cognitive content of speech; one must also gather various types of interpersonal information, for example, "hear the paralinguistic emotive aspects of speech", or "observe the other's facial expressions and other bodily cues, as Michael Argyle (1967: 89) mentions, in order to respond properly and allow for a meshing of performances to take place. But this the learner usually fails to do as all his attention is absorbed in the processing of the literal content.

So in order to help the learner arrive at an adequate conception of listening comprehension, it will be important to stress the fact that there is not one fixed listening comprehension strategy and to make him become less dependent upon the segmental component through sensitization to the various forms redundancy can assume. It will also be relevant to emphasize all the techniques which may lead to the discrimination of higher discourse units and of their patterning, to appropriate skimming, and to the detection of pertinent interpersonal cues.

As far as oral expression is concerned, the model which the learner usually sets himself is that of spoken prose, which is inhibitory to most people in their mother tongue, and even more so of course in a foreign language. Here, sensitization to the numerous shortcomings to be found in native speakers' impromptu performance should sweep away such misplaced scruples.[1] The learner's attention could particularly be drawn to the fact that there is no need to encode in large chunks, as Frieda Goldman Eisler's study of temporal variables has shown that "at its most fluent, two-thirds of spoken language comes in chunks of less than six words", and fifty-per-cent in chunks of less than three words. Neither is there any reason to be self-conscious about hesitation phenomena since in spontaneous speech "the relationship

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[1] See Heddesheimer et alia (1973).

between hesitant and subsequent fluent periods is such that together they seem to form a psycholinguistic unit". (Cf. F. Goldmann Eisler (1973: 17-18 and 94)).

On the other hand, one will have to highlight all that may lead to misunderstandings at the interpersonal level or in some other way be detrimental to communication.

2. Developing a capacity for operative categorisation

Out of a similar concern for efficiency, a capacity for dynamic categorisation should be developed in the learner. It is known that verbal behaviour does not follow an associationistic model of the stimulus-response type: what one responds to is an essentially unstable configuration of cues; hence the failure of methods which either try to set up reflexes through the reiteration of stimuli or which are based on the assumption that transfer from one situation to the other will take care of itself. In neither case is the learner prepared to detect a recurring pattern through contingent variations and thus to reinvest preciously acquired strategies.

In order to tend towards this, the following suggestions may be of help:

1. Introducing authentic (as opposed to constructed) materials from the beginning, just making sure that the level of linguistic difficulty of each recording is related to the learners' linguistic competence;
2. Focussing (implicitly or explicitly, according to the case) on one point in one series of related points at a time (for example, on the structuring function of given prosodic or kinetic features, on the detection of contained irritation or other interpersonal cues in verbal behaviour, etc...);
3. Gathering a few extracts from tapes on self-access which exemplify this point, allowing contextual parameters to assume gradually more and more divergent values, so as to

induce the learner to exert his capacity for inductive reasoning at each stage;

4. Providing him with simple metalinguistic tools or any other type of guidance as necessary.

Obviously, such a methodological procedure entails practical constraints and its success is dependent on the learner's maturity and on the type of guidance given to him. But only through such means can all the conditions be met which, according to Léon Michaux, favour the integration and the evocation of a given item, namely "associations based on either similitude, or opposition, or proximity in time or space" (cf. L. Michaux 1974: 87-88).

3. Reducing psychic inertia through sub-skill training

Keeping in mind those points which should be emphasized in order to correct inhibitory representations of oral skills and the form which training should take in practice, let us now see how a psycholinguistic approach integrating socio-linguistic considerations can reduce psychic inertia at each phase of the decoding and encoding processes. In order to get down to the practical implications of such a principle, I shall analyse the case of decoding in particular detail.

If we regard language activity as a heuristic process, as does Leontiev (1972: 73), we can distinguish three phases in decoding, the third one being concommitant with the other two: psychic orientation, processing of information, and monitoring.

That is, even before starting to process a message, we subconsciously preselect, from a large number of alternative apprehension strategies, the one(s) most likely to be adapted to the situation at hand. Leontiev reports experiments conducted by other Russian psycholinguists[1], showing, for

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[1] See Zinder and Stern (1972):

example, that subjects systematically use different identification strategies in accordance with the signal-noise ratio, focussing their attention respectively on phonetic cues, semantic cues, and frequency of occurrence in cases of optimal, average or poor listening conditions. And he goes on to state that "in the perception of a significant message, solution units can either be isolated words (in cases of minimal noise), groups of words ... or the whole sentence" (A.A. Leontiev, 1972-73: 263).

Now, such a view, in which solution units consist of segmental elements, implies that one has previously chosen to concentrate on the verbal channel.

So I would suggest that, at this orientation stage, strategies could best be conceived of in communicative terms. What one then sub-consciously assesses is:

1. the use to which language is most likely to be put in the given situation, i.e. the register (e.g. lecture, conversation, interview...) and possibly also the genre (in the case of a radio-play or a detective story, etc...) both of which follow conventional rules, which will guide the listening process all along;
2. the degree of likeliness that one will have to respond, to take part in the interaction;
3. (a function of 1. and 2.), the relative importance to be attached to the cognitive / relational components of the message;
4. (a function of 1., 2. and 3.), the order of priority likely to be given to the available communication channels (segmental, prosodic, paralinguistic, kinetic and situational information).

The resultant focussing of attention will of course constantly be liable to further readjustments through the monitoring operation while the processing of information proper is taking place. But, if pertinent clues have been correctly spotted and interpreted, they are likely to provide fairly secure ground for subsequent operations,

(i) by allowing for anticipation of the structure of the message,

(ii) and thus its segmentation into higher units,

(iii) by providing the reference framework without which interpretation simply cannot take place, since a given utterance conveys different meanings in different registers,

(iv) and thereby allowing for the selection of what is distinctive, and therefore crucial, in the situation at hand.

So, in order to enable the iearner to take advantage of the valuable help thus afforded, it is essential to make him develop an intuitive idea of the conventions attached to each register and genre in the culture of the target language. Exposure to a few sound - or preferably video - tapes on self-access for each of the most current registers and genres can be sufficient for him to detect (through cultural divergences) what is common to his own culture and what listening strategies can then be transferred from his communicative competence in his mother tongue.

The second step in this orientation training will be to let him identify registers and genres from a minimal number of cues; from visual cues (such as the personality or conventional role[1] of the speaker, the situational set-up, etc...) by cutting off the sound of a film or a video-tape; or from auditory cues (such as paralinguistic quality, key patterns[2] or the particular patterns of speech rhythms) by blurring the words of a sound tape through filters. By sensitizing the learner to all the information which can be obtained from non-verbal channels, this training should moreover allow for greater confidence and less dependency upon segmental elements.

Such a state of mind, associated with parallel monitoring, largely conditions an appropriate tackling of the processing stage proper, or process of perceptual consturction, a subtle analysis of which is to be found in Wilga

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[1] See Leontiev (1973), p. 49.

[2] For more detailed information on the discursive importance of Key, see Brazil, D. (1975), *Discourse Intonation*, English Language Research, Birmingham University.

River's above-mentioned paper. I shall take up a few points in her study with a view to showing the need for a systematic integration of sociolinguistic elements at each phase of the training, that is training in (1) segmentation, (2) interpretation, (3) recoding, and (4) anticipation (I have left aside memorization as I think it can best be improved through training in segmentation and recoding).

(1) Segmenting the flow of speech into its component units, the basic operation upon which the processing of speech depends, is effected, according to Wilga Rivers (1971: 125, 127 and 130) by applying "the phonotactic, syntactic and lexical collocational rules of the language to which we are attending", and is purely a matter of linguistic competence.

So Wilga Rivers envisages segmentation in terms of *text structure*, whereas in an interactive situation I think there is a case for giving priority to segmentation in terms of *discourse structure*, and for looking elsewhere than merely at the segmental level for structural cues.

Indeed if, as we have seen in Part I, a rough discrimination of segmental units is usually sufficient, it is, however, essential to detect boundaries between the various hierarchical discourse ranks in order to sum up information at adequate points and to respond properly. These discourse ranks include conversation, topic, sequence, pair and turn, to take up Sacks and Schegloff's terminology. One can further subdivide turns into acts as do John Sinclair and Malcolm Coulthard (1975: 23).

For example, to start from the bottom rank, the listener cannot respond as he is expected to unless he has subdivided the other's previous turn into all its component acts. And in some cases several acts are super-imposed in one proposition, as in the example given by Christopher Candlin[1] where a doctor tells his patient "I'm just going to put a few stitches in" in order both to inform him and instruct the nurse to get the suture-set ready.

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[1] English language skills for overseas doctors and medical staff, work in progress, Report II (May 1974), University of Lancaster, p. 35.

Secondly, the listener cannot respond *when* he is expected to unless he has developed a capacity to spot the likely ending of the other speaker's turn so as to give feedback with appropriate timing or ensure a smooth change of speaking turns. Now, semantic cues are not sufficient to detect such boundaries for even when a point seems to be completed and is followed by a pause, the speaker may always be about to add further developments. So perhaps the most reliable cues here are those pointing to sudden relaxation of psychic and muscular tension and are therefore essentially of a prosodic, paralinguistic and/or kinetic nature (the list of end-of-turn cues given by Starkey Duncan Jr.[1] (1974: 164-5) seems to corroborate this view).

Similarly, within a fairly long turn, the structuring of information into points and the relative importance given by the speaker to the various informative elements (which need to be detected for appropriate skimming) can be apprehended in terms of tension versus relaxation and are reflected by key shifts, tonicity and kinetic patterning[2].

One could go on and on for each of the other hierarchical ranks. I shall only mention one more, namely topics. Indeed

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[1] "The turn signal is comprised of a set of six behavioural cues:
(i) the use of any pitch level-terminal juncture combination other than 2 2 at the end of a phonemic clause,
(ii) paralinguistic drawl on the final or on the stressed syllable of a clause,
(iii) the termination of any hand gesticulation used by the speaker, or the relaxation of a tense hand position (e.g. a fist) by the speaker,
(iv) the use by the speaker of one of a set of stereotyped expressions such as "but uh", "or something", or "you know", termed sociocentric sequences by Bernstein,
(v) a drop in paralinguistic pitch and/or intensity, in conjunction with a sociocentric sequence,
(vi) the completion of a grammatical clause."

[2] On the structuring function of shifts in bodily posture or in the orientation of the head, see Scheflen.

it is essential to detect topic boundaries if one is to link adequately one's own contribution to that of the other's and respect the above-mentioned law of coherence, by adopting the same conceptual reference frame.

From all this it appears that training in segmentation should not merely consist in syntactic or even in textual analysis, but also and essentially in discourse analysis centred upon communicative needs.

The learner could be asked to list the component acts in various turns; to give feedback at point boundaries in a taped (preferably video-taped) debate; to analyse what prosodic, paralinguistic and kinetic cues usually reflect relaxation of tension or a wish to leave the floor; to detect points of possible turntaking in a fairly heated discussion, etc...

(2) Now the next sub-skill, interpretation, I shall consider jointly with monitoring, as monitoring is vital here. Indeed not only do lexical elements cover a necessarily different semantic content from one individual to the other but ambiguity is inherent in the linguistic system in the form of semantic presuppositions[1] and of interpersonal implications, so that there is no direct equation between what is expressed and what is signified, particularly in daily interaction.

So interpretive procedures should be developed in the learner not only at the level of the explicit cognitive content of the message, as is currently being done, but at the other main informative levels (according to what is relevant in the situation concerned):

(i) semantic implications
(ii) more essentially, the illocutionary function of the utterance, which, owing to social reasons, appears in a more or less disguised form according to the degree of formality of the message[2],

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[1] See Corder.

[2] See Ducrot, op. cit. (pp. 97-98)

(iii) and the speaker's interpersonal attitude, which is also expressed through more or less indirect means, following the same criterion.

In order to arrive at a more correct interpretation of these last two informative elements, the learner could be asked to identify, with a minimal number of cues, the relative statuses of the participants in the interaction, their social and affective relationships, etc..., particularly through a correct identification of styles (formal, familiar, slovenly...). Having assessed the degree of formality which characterizes their relationship, he could then be asked whether a given utterance is to be taken at its face value or as a polite form of a disparaging or constraining function in that context, (e.g. the phrase "I entirely agree, but don't you think that...", may convey warm agreement + a tentative objection, or it may be a toned-down contradiction). More generally, the learner should be sensitized to the various illocutionary functions a given utterance may convey according to accompanying gestures, facial expressions, prosodic features or situational components.

(3) The recoding process, securing the passage of information into long-term memory, is described by Wilga Rivers as "giving the gist" of what we have heard "usually in simple active affirmative declarative sentences" (1971: 128).

I think this is only one particular type of recoding and that training in recoding should assume different forms according to different types of registers, leading to the use of the reduced code[1] most appropriate in the case at hand, for example:

(i) for a lecture or other didactic registers, the obvious code to be used is note-taking, using indentation to show the relative subordination of elements;

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[1] I borrow the phrase from Corder, S.P. "Simple codes and the source of the second language learner's initial heuristic hypothesis", a paper read at the 4th Neuchatel Colloquium in Applied Linguistics, May 1975 (forthcoming).

(ii) for an exchange of information, telegraphese;

(iii) in registers where the importance of cognitive information tends towards zero to the benefit of relational information, recoding can mean simply identifying the illocutionary function of the utterance (e.g. identifying an integration signal, even if the exact words are not discriminated, merely from its place in exchange structure and the use of low key)[1].

(iv) it can even mean simply identifying the speaker's perlocutionary intention (as in some cases of phatic communication where it is the only thing that matters).

(4) In the case of anticipation, if useful training is to be provided, it has again to include monitoring. The learner could be asked to guess the likely end of a funny story or a detective story presenting a fairly high degree of redundancy; or at a fairly advanced level, to find the word a speaker is looking for, or finish his incomplete sentences (which, besides stimulating anticipation, would have high communicative value, provided it is not done too systematically).

The learner could also be induced to form (as well as to correct) expectations at a higher level, according to the conventions attached to the register (and genre) concerned: this might be done by asking him to guess the likely implications of focussing effects in a thriller or to foresee the probable sequencing of functions[2] in such highly structured registers as lectures, job interviews, etc... Again, one could ask him to gather from a pre-sequence of the type "Are you busy at the moment?" or "Are you doing anything special tonight?" what the following function of that speaker is likely to be, in order to respond accordingly to the pre-sequence, etc...[3]

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[1] See Johns, T.F. "Intonation", a paper read at the Nancy seminar on the Communicative Teaching of English and the Foreign Language Learner; June 1974.

[2] See Candlin (1974).

[3] On functional sequences, see T.F. Johns, Structured Dialogues, University of Birmingham (unpublished).

However limited, such fairly diversified listening comprehension training, deliberately oriented towards subsequent production, besides helping comprehension proper, may sensitize the learner to what is to be taken into account in oral expression in order to be "in tune" with other participants[1], reduce reaction time and facilitate the passage from an auditor state to a speaker state. In the subsequent phases of the encoding process (planning, formulation, monitoring), reaction time can, I think, mainly be reduced by giving the learner immediately utilizable tools, that is, by bridging the gap between usage and use, between reference rules and expression rules, as Henry Widdowson suggests. And the discovery of linguistic, prosodic and kinetic patterning arrived at through the listening comprehension training will further be of help.

The other thing to do is acknowledge shortcomings and find ways of neutralizing the negative effect they might have on communication. Here are a few:

(1) Encoding difficulties often entail delay in responses which can be interpreted as coldness or lack of interest. The use of integration signals, showing that one is acknowledging the point, or the use of "well", showing that one acknowledges the question and tries to answer it, are sufficient to clear the misunderstanding. Another problem due to delay is that, by the time one has found how to formulate an idea, the topic may have been dropped: all one needs then is deictic devices to refer back to that particular point in the interaction, or a phrase like "by the way" to show that one's contribution is unrelated to what is being discussed.

(2) In L2, formulation is often inappropriate, approximative or incomplete. To remedy this while gaining encoding time, one needs "conversational tools"[2] which either point to the approximative character of the formulation (e.g. "sort of", "so to speak", "if you like", "let's say" ... with appropriate coice quality and facial expressions), appeal to the listener's indulgence or imagination (e.g. "you know" at the end of a fragment, or generalizing phrases), or signal an attempt at clarification (e.g. "I mean").

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[1] See Crystal and Davy.

[2] See Saunders.

(3) Moreover, formulation in L2 is often too categorical, sometimes even aggressive. So first of all, one needs linguistic or other means of nuancing or taking back what has been said too hastily. But essentially, one must be sensitized to aggressive or categorical intonation patterns related to given functions. Besides, in the teaching of functions such as request or contradiction, which can appear either constraining or disparaging to the listener, toned-down formulae should be highlighted, rather than performatives or other straight-foward structures (such as the imperative and "I don't agree").

Needless to say, most of these pedagogical suggestions are tentative and highly provisional. They will need to be adapted to the level, needs and motivations of the audience, and many more will have to be added as advances in psycholinguistics and discourse analysis are made, for they are as yet much too sporadic to get anywhere near to securing transfer.

But at least, this is a step in the direction pointed to by Tatjana Slama-Cazacu in her article "Is a socio-psycholinguistics necessary?"[1], a direction which, I feel, cannot lead one far astray since it is an evidence that the speaker cannot be isolated from his environment any more than the message can be isolated from the speaker.

[1] "Taking into consideration the social context of language and communication is a necessary an even essential condition for the existence of psycholinguistics - and this is the direction it should take in the future." (1973: 96)

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TESTING LISTENING COMPREHENSION THROUGH REDUNDANCY REDUCTION

1. Introduction

The idea of reducing the redundancy of a verbal message in a statistical way is by no means a novelty in language testing. It has been used at least since information theory began to have an effect on readability measurement, and, in consequence, on the measurement of individual differences in native-language reading comprehension skill (Taylor 1957; Bormuth 1962). In language description, information theory was reflected in the efforts to characterise language in terms of transitional probability - i.e. the likelihood that a given language item will be followed by certain others. Such models of language structure can now be shown to be inadequate in comparison with the hierarchical elegance of generative descriptions. Yet it seems that some of the testing techniques in current use are based, in part at least, on just these probabilistic views (witness the widespread interest in gap-filling).

One possible reason for this is the recent trend in the study of language performance, which emphasises the dimension of time and the dynamic use of knowledge in perception and production (Marslen-Wilson 1976; Wold 1976). Even though the language user's competence is probably best described as an atemporal hierarchical system, his performance always involves a serial event spread over time. In perception, this temporal sequence, the succession of speech signals, is translated into an atemporal plan or perceptual schema. In production, the direction is the opposite. Obviously, atemporal competence is the basis of performance. The listener is not, however, "a transformational linguist trying to map a sentence onto a grammatical theory" (Marslen-Wilson 1976:227). Therefore his performance may also be based on a heuristic utilisation of whatever cues he may find in the signal. Considering the temporality of speech comprehension, and the necessarily sequential

intake of information, these cues may well include the serial order of elements and transitional probability. Perhaps it is this fact that makes for the underlying connection between some present-day language tests and such concepts as information, redundancy, probability, and predictability.

In this paper, an attempt is first made to outline comprehension as a creative, constructive activity, and to discuss some of the implications of this view, especially as regards redundancy utilisation. Next, two reduced redundancy techniques of listening comprehension testing are reviewed. Finally, a few preliminary observations on an experimental reduced redundancy listening comprehension test are offered.

2. The background to reduced redundancy tests: the constructivist view of listening comprehension and some of its implications

According to the "constructivist" view, speech comprehension is an active cognitive operation. The sensory data, received during a fast and holistic stage variously referred to as "feature detection" or "sensation" (Massaro 1975), "sensing" (Rivers 1975), or the "preattentive stage" (Neisser 1966), are stored for a brief period in an echoic memory structure. The constructive process begins immediately with the synthesising of perceptual units (e.g. syllables) from the sensory data. Those portions of the speech wave that fail to fit into the auditory synthesis are rejected as irrelevant noise, and do not come to the listener's attention. The process continues with an active transformation and reduction of the information into a verbal, meaningful form. This transformation is made possible by the store of linguistic information in the listener's long-term memory. The resulting string of recognised words is stored in the short-term "working" memory. Rehearsal, which has been described by Rivers (1971:128) as "the recirculating of material through our cognitive system", is necessary before the meaning of the message can be derived: it keeps the perceived string of words 'alive' in order that they may be related to other parts of the utterance through a further process of recoding. In this further abstraction of the information, words are combined into phrases, phrases into clauses, and so on. Recoding - "chunking", as Miller (1956) calls it - is thus

assumed to be the process through which the meanings of larger units become available to the listener. It can be thought of as a repeated process that reduces, say, a string of words into successively more abstract, meaningful items ("chunks") in the working memory. The derivation of the meaning of longer stretches of speech would not be possible without this restructuring, since the capacity of the working memory is limited. As a result of the rehearsal/recoding – working memory loop, information is finally placed in long-term storage in forms radically different from those in which it was originally perceived. Sentences, for example, lose their surface characteristics, and their meaning is stored in some kind of deep-structure form (Neisser 1966; Rivers 1975; Wanner 1974; Massaro 1975).

Speech comprehension is a communicative act, and communication takes place in real time. Because of this temporality, it seems that models attempting to account for ordinary comprehension of continuous discourse will have to incorporate heuristic strategies, and to assume that higher-level processes (syntax, semantics, context) are involved from the very beginning. One such strategy, based on this idea of simultaneous and parallel processing, is redundancy utilisation. It may be defined as the listener's capacity to make systematic hypotheses about the content and structure of the message. This capacity has its basis in the linguistic and pragmatic competence of the listener, and it enables him to construct projective hypotheses from earlier information and to evaluate these hypotheses utilising subsequent data. The listener's knowledge of communication situations tells him what is likely to be said in the given situation. Further, his knowledge of syntax tells him what to expect if, for example, he hears a question word at the beginning of a sentence. Similarly, he knows the phonological rules concerning permissible sound sequences, and these rules facilitate word recognition by introducing redundancy on the phonological level, and so on. The important thing is that the utilisation of redundancies at different levels of language is a simultaneous and parallel process, i.e., that comprehension performance is integrative.

The constructivist view has several implications. First of all, it means that processing is facilitated by the linguistic and pragmatic organisation of the message, together with its presentation

in context. The more explicit and clear the structure, the greater the amount of redundancy in the message, and the easier the comprehension task. Similarly, if the utterance is tied to a sufficient context, it is likely that comprehension will be enhanced through expectations and a psychological set that effectively guides the listener's attention[1]. If organisation of the material and its presentation in context are important aids to language processing by natives, they are all the more important for the foreign language learner, whose mastery of the new linguistic system may still be relatively incomplete. Native speakers talking to learners are intuitively aware of this, and tend to avoid speaking in ways that would make the organisation of their message less evident. Pragmatic organisation of the material is particularly important for the processing that takes place in a language learning situation, since it increases the learner's opportunities for utilising redundancies that are not language-specific.

Secondly, the constructivist view implies that memory, especially short-term storage, is an essential part of comprehension. Short-term "working" memory is known to have a limited capacity, but since it operates on the principle of hierarchical recoding ("chunking"), its capacity can be extended. The listener's generative competence, which allows redundancy utilisation, also accounts for his ability to recode verbal material for retention in the working memory. The retention of a certain amount of previous context is necessary for the generation of anticipatory hypotheses. Similarly, the "right-to-left" clarification of unclear or ambiguous points in the message also requires the storage of fairly extensive sequences. As the native listener masters the categories of his language, he is able to "chunk" the message according to these categories. As a result, he is able to hold large amounts of context in his working memory, and to utilise this context while anticipating or clarifying parts of the message. The L2 learner, however, has an imperfectly developed mastery of the categories of the language, which

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[1] Psycholinguistic research on the effects of organisation and context on comprehension, memory, and learning has been reviewed by Oller (1972) and Kohonen (1975).

presumably reduces his ability to handle data in short-term storage. Some experiments that suggest a connection between L2 skill and short-term memory are described by Lado (1965; 1970) and Harris (1970). It has been shown, for example, that short-term memory capacity is greater for L1 than for L2 material; that L2 sentence memory span is affected by certain grammatical variables to a larger extent than the L1 span; and that L2 short-term memory tests correlate reasonably well with typical multiple-choice tests of listening comprehension and grammar. The likely explanation for these L2 results is that the learner lacks the native speaker's full capacity for effective recoding. Therefore, his capacity to handle L2 data in the working memory is limited, and this is reflected in both comprehension and production.

Looking at the active processes of comprehension and redundancy utilisation from another angle, a third implication of the constructivist view is that the native listener is only partly bound by the properties of the signal he receives. In ordinary communication, the listener must actively construct the message for himself. One reason for this is that spoken discourse is often highly fragmentary and elliptical. The clarity of the message may also be reduced because of psychological or even physiological performance limitations either in the speaker or in the listener. The channel of communication may carry a considerable amount of noise, competing messages, and so on. The presence of some kind of disturbance is the rule rather than the exception in normal communication. Under such circumstances, a purely "passive" comprehension system, entirely dependent on the stimulus, would in fact be an impossibility.

The ability of the competent native listener to process non-ideal messages was efficiently demonstrated by the early experiments with acoustic speech distortion. The experimenters used filtering, amplitude selection, time compression, noise addition, and a variety of other techniques. The general finding was that continuous speech is highly resistant to distortion (see Miller 1951). The explanation for this was found in the high redundancy of language, i.e. the multiplicity of cues present in the message. According to the constructivist view, another equally crucial factor is the reconstructive power of the native listener's

competence. In the case of the L2 learner, this creative redundancy utilisation capacity is normally more restricted.

3. Two reduced redundancy tests of listening comprehension

3.1. General remarks

The central point in the constructivist view of comprehension is thus the active contribution of the listener. He puts the message together for himself, working simultaneously at all levels of language structure, and utilising whatever linguistic or extra-linguistic cues there may be in the message, in order to arrive at the meaning as quickly as possible. Such an integrative capacity for redundancy utilisation can even be thought of as a central factor underlying much of language use (cf. Holzman 1967; Oller 1976). According to this view, a convenient way to get an overall estimate of the L2 learner's skills is to present him with messages that do not contain all the information they normally carry. The result - a reduced redundancy test - is integrative in much the same way as language use itself is integrative. In such tests, the learner needs to mobilise his total awareness of the L2 linguistic and pragmatic structure. He uses that structure in making hypotheses about the content of the message. His memory capacity is also involved, since memory is necessary for both the making and verification of these hypotheses.

3.2. The "Noise Test"

In a language testing context, the first systematic experiments with noise addition were carried out at Indiana University by Spolsky et al. (1968; see also Spolsky 1971; 1975). At Lund University, the technique has been used by Johansson (1972; 1973). Further investigations of its characteristics as a FL test include Gradman (1973) and Gradman & Spolsky (1975). Some new development in the contextualisation of these tests have been reported by Seliger & Whiteson (1975), Whiteson (1975), and Gaies et al. (1977).

The term "noise test" has come to refer to the reduced redundancy listening tests employed by these testers. In this type of test, the subject hears sentences mixed with white noise (a hissing sound in which the frequencies of a wide frequency

range are equally represented). The sentences are usually unconnected. The task of the testee is to reproduce the sentences in writing as accurately as possible. Thus, the noise test is essentially a dictation test where the entire message must be processed for both comprehension and verbatim reproduction, and where the main emphasis is on intensive listening. In its use of external distortion, it is related to those tests of (usually extensive) comprehension where authentic materials (street interviews against traffic noise, for example) are used, but the noise test represents an attempt to control the level of redundancy reduction. The testee's proficiency can be stated either in terms of the signal-to-noise ratio with which he achieves a given level of accuracy, or in terms of his comprehension score at a fixed level of distortion.

The preliminary experiments by Spolsky et al. were concerned mainly with the practical arrangements required by the technique. It was found that an adequate scoring system for the dictations can be developed, and that the noise can be added without too much difficulty, although the use of various signal-to-noise ratios demands electronic compressing of the signal. In addition to the noise-plus-dictation technique, a multiple-choice variant has been used (Gradman 1973), in which the testee selects his responses from 5 alternative sentences. In general, the noise test appeared reasonably viable. However, the technical aspects of its construction can be complicated, and the continuous presence of disturbing hiss may be found objectionable by some testees.

Spolsky (1971) and Johansson (1972) agree that the test appears reliable even in its dictation form. The multiple-choice version used by Gradman had a Kuder-Richardson reliability index of .68 (N=25). When the test was given to over six hundred non-native speakers of English, its reliability reached .92. The multiple-choice version was found to correlate at over .80 with the dictation version, indicating that there would be some grounds for using the administratively more efficient and objective variant instead of the subjectively scored dictation (Gradman & Spolsky 1975).

Most of the discussion around noise tests of the above type

has centred on the validity of the technique. Its construct validity as a reduced redundancy test is fairly generally accepted. Some differences of opinion seem to exist about empirical validity, estimated through correlations between noise tests and other measures of L2 proficiency. The final form of Spolsky's original (1968) test correlated at .66 (Spearman's rho) with a diagnostic test of listening comprehension, at .66 with an objective discrete-point grammar test, and at .51 with an essay (N = 61). The continuation of these experiments reported by Gradman (1973) and Gradman & Spolsky (1975) produced reasonably high coefficients both with oral interviews (.79 and .69; N = 25,26) and with the totals of the TOEFL battery (.75 and .66, respectively). With a test modelled on Spolsky's original, Whiteson (1972) obtained a .54 correlation between noise test results and a proficiency test developed at Cambridge University (N = 12). The contextualised type of noise test (Seliger and Whiteson 1975) correlated at .69 (N = 65) with a test based on the Cambridge Proficiency Exam. Johansson (1972; 1973) reports a .52 correlation with what is termed a "test of general English proficiency" (1972:399) - a written text with a number of points where the testee chooses the syntactically right one from 2-3 alternative formulations.

The interpretations of these figures differ considerably. Spolsky and Gradman think that the noise test is a promising measure of global L2 proficiency. Gradman (1973) hopes that it may be able to replace the functionally oriented but subjective interview. Johansson, however, comes to the conclusion that the noise test is not a valid measure of L2 overall skill.

Although Johansson's test of general English proficiency may not be entirely adequate as a criterion, the correlations do not on the whole seem to warrant the conclusion that a valid estimate of L2 skill could be based on noise tests alone. At best, the noise test seems to account for some 50 per cent of the variance in a traditional proficiency battery. It is also fairly easy to agree with Johansson that the noise test - as rather a special kind of listening test - is likely to emphasise psychological and even physiological factors such as hearing ability and ability to disregard external disturbance when concentrating on a task.

A second point of interest related to validity is the relationship between the noise test and dictation as integrative listening tests. Although Johansson's low correlation between the

noise test and a test of listening comprehension (.20) in part results from the low discrimination power of the former, the fact remains that dictation without noise correlated considerably better with listening comprehension (.83; N = 26). The correlation of .93 (N = 71) obtained by Gradman and Spolsky (1975) between dictation with heavy distortion and dictation with minimal distortion (S/N = 50 dB) also indicates that dictation could be used alone, much as Johansson suggests. Gradman and Spolsky defend the use of noise by saying that mistakes at different levels of distortion may be different, and that further research into the use of noise could give useful information on how linguistic units relate to levels of redundancy reduction. These questions are certainly interesting for interlanguage analysis. If one wants to use dictation methods in testing L2 skills, the traditional undistorted exercise would, however, seem simpler and more straightforward, especially as it also contains a strong redundancy utilisation element (cf. Oller and Streif 1975). Recently Gaies, Gradman, and Spolsky (1977:56) have in fact come round to Johansson's (1972) view, and state that "the use of background noise seems to have had little effect on the measurement of overall English proficiency" for their students.

The fact that isolated sentences have normally been used in noise tests also diminishes their validity as integrative measures of listening proficiency. Contextualisation of these tests (the use of a continuous text in a lifelike situation, e.g. a conversation between two airline passengers with jet whine in the background) is certainly a desirable improvement (Seliger and Whiteson 1975; cf. also Gaies et al. 1977). However, it seems a little dubious whether even this increased "realism" can avert hostile attitudes in students taking such tests on repeated occasions. And since the addition of noise seems to make relatively little difference in the results, its value as a systematic redundancy reduction tool in intensive listening tests remains unproven.

3.2. Aural cloze

The cloze procedure, originated by Taylor (1953) as a readability measure and subsequently used by native and foreign language testers as a reading comprehension test, also lends itself fairly

easily to reduced redundancy testing of listening skills. One possible method is to use an unmutilated listening passage together with a cloze-mutilated transcript on which the testees mark their responses after listening (Oakeshott-Taylor 1976; cf. also Nygård & Nordström 1976). The filling of the gaps may also be done as a speeded test to simulate the real time limits of spoken communication. Another variant of this technique is Johansson's "partial dictation" (1973), in which pauses are inserted at suitable places after each gap for the student to fill in the missing section of the aural and written message. These procedures are essentially written cloze made easier by the preceding or partly simultaneous presence of the original information in aural form.

A somewhat more aural technique is the presentation of a listening passage or dialogue that is interrupted at certain times, when the testee is asked to choose the continuation from a set of written alternatives. This produces a test of the ability to utilise previous context in "predictive listening" (Hughes 1974). It may be a measure of both extensive listening, including inference, and more detailed points of language structure and usage. The problems inherent in item construction are perhaps compensated for by quick and reliable scoring.

The original idea of the cloze procedure as a systematic reduction of redundancy through statistical deletion can also be applied to taped aural messages. A given stretch (e.g. one second) of acoustic information may be excised at regular intervals and replaced by silence. Another possibility is to base the deletion on linguistic units, words or longer segments. Although the latter procedure may be criticised on phonetic grounds, the segmenting can, however, be done relatively easily and with an accuracy sufficient for measuring the testees' expectancies of the linguistic features involved.

Both the noise test and aural cloze of the word-deletion type can probably be characterised as intensive listening tests. They are integrative in the sense that both continuous acoustic distortion, and the random deletion of words, result in an even spread of redundancy reduction over different linguistic features. Short-term memory plays a similar role in both types of test, and both of them require fairly quick reaction in the use of language, as is appropriate in a test connected with oral communication. Verbatim

reproduction, however, is more important in the dictation-type noise test: if the requirement of verbatim reproduction is dropped, the scoring of semantically acceptable alternatives soon becomes problematic. Aural cloze is more easily scored according to contextual criteria, and may thus give more emphasis to adequate comprehension. Although aural cloze is not very far removed from dictation in the sense that it requires the student to take down parts of the message, it may demand a more active and creative utilisation of redundancies than the noise test does.

Written cloze has been subjected to extensive research, but relatively little can be found about aural cloze as a testing technique, although its use was suggested by Taylor as early as the fifties (Taylor 1956).

Dickens and Williams (1964) describe an experiment in which two aural cloze tests were given to native speakers of English (N = 127, 126). The tests, in which the reduction of redundancy consisted in the deletion of one word every 5 seconds, had split-half reliabilities of .80 and .70, and correlated with each other at .73. The scores were found to correlate at .52 and .49 with a general test of English language ability. These correlations were almost identical with those obtained between the language ability test and two traditional tests of listening comprehension. However, according to the authors, aural cloze appeared more reliable. The reliability and validity of aural cloze as a foreign-language test were further investigated by Gregory-Panopoulos (1966), whose test contained 126 items (deletions of every 5th word from parts of a lecture), with the maximum of 4 deletions per sentence. Verbatim scoring was used with some exceptions. Test-retest reliability was slightly over .90 in the two adult subject groups (N = 43, 47), and the test was found to correlate at .66 with a standardised listening comprehension test, and at .69 with the California Reading Test. The author considers cloze to be a more direct and reliable measure of foreign-language listening comprehension than the traditional multiple-choice tests. Nutter's (1974) study of the effects of different deletion patterns and other technical variations in the procedure indicated, not surprisingly, that reliabilities and difficulty levels are affected by such factors as passage type, different methods of presentation, and deletion patterns. Templeton's (1977) test, given to a group of 39 adult

foreign students of English, had a reliability of over .90. It correlated best with the aural section of a proficiency battery (.80), while the lowest correlation was obtained with the vocabulary section (.54).

The aural cloze tests mentioned above have displayed quite a remarkable reliability. This may in part be connected with the fact that it is fairly easy to make a cloze test that contains a large number of items. Their construct validity is again based on the ideas of language redundancy and constructive comprehension. As far as empirical validity is concerned, Templeton's results, for example, seem promising. More work should, however, be carried out on the question of what exactly is involved in a test of this type, i.e. whether it can be called a test of general L2 proficiency, a listening comprehension test, a vocabulary quiz, or, in Templeton's phrase (1977:298), a test of "spotting the bleep". The next section of this paper deals with some of these questions in a very preliminary way.

4. Aural cloze with Finnish learners: some tentative results

Some preliminary experiments with aural cloze were carried out in 1976-7 at the Department of English, University of Turku, in order to find out whether an intensive listening test could be developed that would have a stronger theoretical basis than the completion tasks traditionally used to measure listening for details. It was felt that in many cases the completion items in existing listening comprehension exercises and tests were written because it had been difficult to construct enough sensible multiple-choice questions for the exercise to be usable or the test to be reliable. The idea of redundancy utilisation seemed to offer a suitable background for the development of such intensive listening material. The skill of intensive listening was loosely defined as the ability to concentrate on the language used to express the content of the passage. The task of the student in the test can be said to include most of Hughes' (1974) categories of listening skills (at least predictive, retrospective, constructive, and even inferential listening), but the emphasis here was on language structure. Thus the aim of the test was not

to measure how well the student could follow the general lines of argument in an aural message, or how well he could extract information from the passage and evaluate this information, although this wider type of comprehension is not doubt involved in intensive listening as well. An integrative type of language proficiency test was aimed at, but it was assumed that results would be affected by the fact that the test was specifically a listening test.

Accordingly, a number of aural cloze tests based on the deletion of words from taped monologues (originally either scripted radio talks or written passages modified for oral presentation) were administered to first-year students of English, and a group of native British secondary school students. So far, detailed results are available for the first of the experimental EFL tests. In the following some general observations about this test are given.

The test consisted of 72 items, with the omission of every 10th word as the deletion principle. The deleted words were replaced by splicing in a quiet electronic signal of constant length (1 sec.). The following extract illustrates the type of text used[1]:

> ... Well, I'm a professional writer, and _____ I was younger I thought a typewriter would be _____. I even thought it was necessary, and that editors and _____ would expect anything sent to them to be typewritten. _____ I bought myself a typewriter and taught myself to _____. And for some years I typed away busily. But _____ didn't enjoy typing. I happen to enjoy the act of _____ ...
>
> (adapted from Spencer, D.H., English for Proficiency, OUP 1963.)

In this experiment, unlike the subsequent ones, the subjects were not allowed to listen to the mutilated passage beforehand. Their task was to reconstruct the passage on the basis of only one hearing, and to write down their completions on an answer sheet either during listening or during pauses that were inserted at

[1] The texts selected contained a considerable amount of redundancy in the form of repetition, as can be seen from the extract. In some texts, the amount of redundancy was increased by shortening the sentences (converting embeddings into short main clauses, for example), or by inserting reformulations of words, etc. - Occasionally the context between two gaps was shortened or lengthened by one word owing to such phonetic reasons as reductions in weak forms.

suitable syntactic boundaries, mostly between sentences.

The response data were processed using the CLOZE computer program (see Kohonen & Salmela 1977), and the subjects' completions were evaluated according to both verbatim and contextual criteria. In the latter scoring, which was done by a native English speaker, a completion was counted as correct if it fitted the context up to the end of the last sentence heard. An item analysis was carried out using the OPSAM program (Mikkonen & Mikkonen 1971). Table 1 gives some of the item analysis results.

TABLE 1. ITEM ANALYSIS OF AN EXPERIMENTAL AURAL CLOZE TEST

No of items = 72
N = 55

	1	2	3	4
verbatim scoring	40 %	.80	56 (78 %)	.82
contextual scoring	54 %	.84	65 (90 %)	.85

1 = average solution percentage; 2 = reliability (internal consistency) of the entire 72-item test; 3 = number and (percentage) of items with an item correlation $\geqslant .00$; 4 = reliability of test with items mentioned in 3.

As was expected, the test in this form (only one hearing) proved rather difficult. An interesting result was the relatively small difference between the average solution percentages on the two scorings. This was due to the scoring criteria used in 1976, since paraphrases of several words were not accepted in this contextual scoring. The criteria have later been modified, and this will probably increase the difference between verbatim and contextual percentages. A second listening, employed in later testings, also makes the task of the testee somewhat easier. It may be seen that the reliability of the test was relatively high even before any items had been removed on the basis of the

item correlations[1]. Contextual scoring is seen to be statistically more effective, besides being intuitively a more proper way to assess foreign language cloze responses (cf. Kohonen 1976, whose findings in an EFL written cloze test were similar). The general observation from the item analysis is that the experimental aural cloze test proved to be a fairly reliable instrument, and it is probable that the changes introduced in the scoring criteria will further diminish the number of discarded items.

The previous research reported above seems to indicate that reduced redundancy tests of this type have reasonable empirical validity. In order to see how the test performed in that respect, the scores were correlated with the subjects' scores in the 1976 Joint Entrance Exam (arranged by Turku together with three other university Departments of English).

TABLE 2. CORRELATIONS BETWEEN AURAL CLOZE AND THE 1976 JOINT ENTRANCE EXAM

N = 48

	1	2	3	4	5	6	7
verbatim	.15	$.49^{+}$	$.39^{+}$	.17	.28	.11	$.49^{+}$
contextual	.10	$.48^{+}$	$.40^{+}$	.24	.34	.22	$.52^{+}$

1 = lecture comprehension; 2 = listening comprehension; 3 = reading comprehension; 4 = vocabulary; 5 = grammar; 6 = "verbal reasoning" (linguistic inferences from artificial language data); 7 = total of sections 1-5. Asterisk = significant beyond the 99 per cent level of confidence.

[1] In the analysis, items can be discarded according to a pre-determined level of item correlation. Normally, zero correlation is a suitable cut-off point for small populations such as the present group. - If one employs the more stringent criterion that a "good" item must correlate with the total score at the 95 per cent level of confidence, about half of the items (31,ie. 51 %) are functioning well with contextual scoring. The corresponding figure for verbatim scoring is 26 (= 36 %). This reflects the typical characteristic of cloze tests that they contain relatively many items that are either too easy or too difficult, and the fact that contextual scoring functions better than verbatim scoring.

As may be seen from the table, the product-moment correlations are not quite as high as in some of the experiments reported earlier; however, some of them are statistically significant beyond the 1 per cent risk level, and the correlation between aural cloze and the English skills total (sections 1-5 of the Entrance Exam) seems high enough to warrant further use of the test. Since the test population represented the top candidates in the entrance test, the variance in their entrance test results is relatively small. This is thus one factor that in fact prevents the correlation from attaining a particularly high value.

The correlations in Table 2 must be treated with the usual caution, but perhaps they permit some speculations about what kinds of skill are involved in aural cloze. Contextually scored aural cloze correlates best with aural comprehension. This section contained several items testing "predictive listening" - multiple-choice completions of dialogues, testing the utilisation of preceding context both extensively and from the point of view of usage and idioms. The correlation between contextual aural cloze and lecture comprehension, on the other hand, is the lowest of the set. The lecture questions concentrated on measuring the acquisition and even application of information contained in a taped lecture. These correlations may perhaps be taken as an indication that aural cloze is more concerned with intensive than extensive listening, and that it is more a test of language structure in a wide sense than a test of following the argumentation in an aural message. The differences between the rest of the correlations are too small to justify proper comments. However, it may be a sign of the integrative nature of aural cloze that its correlations with reading and listening comprehension - both of them integrative tests - are somewhat higher than its correlations with the discrete-point grammar and vocabulary sections. Possibly one could also speculate that the mastery of grammar, and of language structure in general, is at least as important as the mere knowledge of vocabulary in tests of this type.

No doubt the reduced redundancy tests described above - the noise test and aural cloze - involve a considerable element specific to listening. It is thus difficult to say whether they would suffice alone as measures of L2 proficiency, even if a suitable combination of statistical factors were to produce high coefficients

of validity. As subtests in proficiency batteries they seem to be useful. Gradman and Spolsky (1975), for example, think that the noise test can cover an unattended area between functionally oriented interviews and discrete-point measures of proficiency. As far as can be told from the present preliminary results, aural cloze may be even more interesting as an integrative but structured test, since it contains a considerable element of creativity, and may thus serve as a more effective indication of the learner's fluency than the noise test.

The role of "local redundancy" (Carroll 1972) is obviously important in aural (and written) cloze: most of the items tend to measure the utilisation of short-range constraints. However, this is by no means an unimportant aim of language learning (cf. Enkvist and Kohonen 1977), and exercises or tests of this intensive ability therefore seem justified. But the fact that local redundancy is central in many cloze tests means that they can hardly be employed as the test of L2 comprehension. The more extensive aspects of listening, such as separating the essential information from unimportant detail (Hughes' "redundancy listening") are probably best measured by multiple-choice and related techniques.

One disadvantage of aural cloze of the above type is that only restricted kinds of material can be used. Another technical difficulty is that the mutilation of an aural message introduces the somewhat irrelevant task of "spotting the bleeps", and keeping the exact locations of the omissions in mind. This can be remedied in part by telling the subjects that they can write down not only the missing item but also some of its immediate context.

On the whole, the completions seem to produce fairly interesting insights into how learners process spoken text. The fact that it is the weaker students who tend to get mixed up is explained by their imperfect redundancy utilisation capacity: making hypotheses about the content of the gaps takes so long that inadequate time is left for rehearsal. As a result, parts of the information vanish from the working memory, and the content and form of the message are inadequately processed. The more fluent learner, on the other hand, is capable of quick recognition of the linguistic features in the message; his fluency also makes for efficient hypothesis-generation and quick recoding. This leaves more time for rehearsal, and the reproduction of the content as well as the form of the message is easier.

The face validity of the reduced redundancy tests mentioned above should also be briefly commented on, as it may be the most important thing to the "layman" taking the test. The intentional presence of distorting noise is hardly likely to make the test "seem right" to the testees. As far as aural cloze is concerned, similar doubts are expressed by some testees about the relevance of gap-filling – an indication that the connection between redundancy utilisation, as measured by cloze, and communication, may not be immediately recognisable. On the other hand, the majority of students in the experiment described above, and in the subsequent testings, considered the test interesting and valid in the sense that it requires imaginativeness and a fluent general mastery of the language.

It is of course desirable that the tests given to learners should also have some instructional value. The idea of redundancy utilisation is clearly not confined to tests only. It is inherent, for example, in the use of authentic materials for extensive listening practice. A redundancy reduction element is contained in all exercises where normal rates of delivery are used, where there are several speakers engaged in spontaneous conversation with normal amounts of background noise, etc. Anticipatory listening, a central feature in reduced redundancy tests, can be practised in class by interrupting the presentation of the exercise tape at certain places and asking students to suggest and evaluate possible continuations. The kind of aural cloze that was described above can probably be used at advanced levels as an exercise for increasing the learners' L2 processing capacity. According to Godfrey (1977:118), such an increase would follow from "pushing the learner to do more with the utterance", i.e. involving him in structured active deep-level processing. Given the time limits inherent in spoken communication, this would force the learner to make full use of his chunking and working memory capacities. He would thus in fact be creating "extra" processing time, which could be channeled into rehearsal (for better retention and recall) and further recoding (e.g. relating discourse segments to each other). In aural cloze the listener is actively engaged in construction that is typical of real comprehension, and the generation of hypotheses about missing items involves deep-level processing of the message. The fact that the elusive spoken message must be attended to in depth may be one reason why students normally find aural cloze exercises fairly interesting and instructive[1].

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THE FUNCTIONS OF INTONATION

1. Intonation and paralinguistic vocal features [FN]

In this paper I am going to draw a distinction between some of the features which have often been grouped together under the term 'intonation'. I shall distinguish intonation and paralinguistic vocal features. I take intonation to refer to the rise and fall of the pitch contour within a given tone group, together with some aspects of amplitude and duration. I then use the term paralinguistic vocal features to refer to aspects like whereabouts in the pitch range of an individual a given contour is placed, the pitch span of a given tone group relative to the normal pitch span of the individual, the loudness/softness and rapidity/slowness of articulation in a given tone group relative to the norm for the individual, features of voice quality like 'breathy voice', 'harsh voice', 'creaky voice' etc. and other features which affect the speech signal like nasalisation and lip posture (as in smiling, pouting etc.). (For further discussion of this distinction cf. Brown, 1977.)

2. Functions of intonation and paralinguistic vocal features

I assume that intonation and paralinguistic vocal features perform at least the following functions in spoken language:

i) Intonation chunks structures which are to be co-interpreted semantically and syntactically into units within one overall pitch contour. I shall refer to such semantic/syntactic structures as information units (following Halliday,

1967) and the phonological forms which demarcate these structures as tone groups.

ii) Together with paralinguistic vocal features, intonation chunks sequences of information units which have internal discoursal coherence and require to be interpreted with respect to each other (most obviously exemplified by relationships of subordination and co-ordination) into a series of tone groups placed within an overall tonal contour, a paratone. Paratones in speech are typically shorter than those in written language. Successive tone groups within a paratone are typically placed in a descending sequence within the pitch range of the individual, and tone group initial unstressed syllables will tend to be at around the same pitch level as preceding tone group final syllables. The final pitch of the final tone group is typically low. The relationship between the tone groups within a paratone is, then, held to be describable in terms of paratonic structure.

iii) Together with paralinguistic vocal features, intonation marks, for the listener, a change of topic since the speaker typically embarks on a new topic high in his pitch range. The end of a topic is typically marked as extra-low. In the course of a speaker's development of one topic he may construct several paratonic structures. I suggest here, then, a hierarchical structure in which a topic unit contains at least one speech paragraph (realised within a paratone) and a speech paragraph contains at least one information unit (realised within a tone group). The topic unit is the maximal unit which is structured by pitch phenomena within an overall grouping.

iv) Together with paralinguistic features (and here may be included features other than vocal features -posture changes and eye contact, for instance) intonation marks the taking over, maintenance and giving up of turns in conversation. The features which perform this function appear to be those same demarcative features which I have described under ii and iii above. However, later in the

discussion, I shall attempt to justify adding a further intonational characteristic to this function.

v) Together with paralinguistic vocal features, intonation may be manipulated to emphasise or make prominent a particular stretch of speech. For instance a particular word may be uttered very softly breathily and low in pitch range, in contrast to its contextualising words, or the discourse may suddenly be chunked into a series of very short units after a run of longer units.

vi) Together with paralinguistic vocal features, intonation may be used to express the attitude of the speaker both towards his hearer (kind, friendly, distant, etc.) and towards his message (serious, frivolous, astonished, etc.). I believe that it is the paralinguistic vocal features (together, obviously, with other paralinguistic features) which are primarily responsible for the expression of attitude. However there are some intonational features which are conventionally associated with particular ranges of attitude - for instance a falling-rising tone, together with a 'warm' voice quality and a smile are characteristically used to encourage.

There will, I think, be little disagreement with the list of functions of intonation and paralinguistic vocal features that I have mentioned so far. There is, however, a further function which is frequently attributed to 'intonation' which I would like to explore in greater detail and I turn to this in the next section.

3. Intonation and speech function

I do not wish to add to the plethora of terms being used in ways more or less specific to their author, so I shall now use the general term 'function' in another sense in which it is commonly used. I shall draw the familiar distinction between form and function (cf. for example, Quirk at al. 1972). I shall recognise, then, to begin with, declarative,

interrogative and imperative forms on the one hand, and statement, question and command functions on the other, and we will note that an unmarked relationship has been held to exist between the pairs declarative/statement, interrogative/question and imperative/command. Similarly an unmarked relationship has been held to exist between statements, commands and questions realised with initial WH words and falling intonation, and yes-no questions and rising intonation. These relationships have, of course, been postulated to hold for sentence tokens cited in isolation from any context, and there is a certain amount of experimental evidence which indicates that these stereotypes do hold for sentences in isolation. In natural discourse it is of course rare to find interrogative forms of either type uttered with rising intonation (cf. Kenworthy, to appear). Since the examination of discoursal form-function relationships is only now seriously beginning, I shall limit much of my discussion to the familiar class of sentence tokens cited in constructed contexts.

The question I want to pursue in this paper is the relation between rising tone and question function. This is a relation which is widely assumed (cf. for example, Qurk et al., 1972 where a rising tone is listed as a formal marker of question function, together with the formal syntactic markers of interrogative structure). However, since question function is by no means easy to define, let us ease our way into the discussion by considering the effect of intonation on commands, since 'command' seems a good deal more accessible as a notion than 'question'.

I shall begin by considering the imperative - command - falling tone relationship. Let us assume that normal constitutive conditions on commands obtain - that is that A wished B to perform x, that A believes that B would not perform x without being asked, that A believes that B is able to perform x, that A believes that his role with respect to B is such that he can properly ask B to perform x, and so on. Having set up this ideal situation then, let us allow A to

produce a straightforward command with imperative form, falling intonation and the paralinguistic features appropriate to a command (i.e. not pouting, laughing, winking, etc.):

Close the door

The question we shall consider then is, if we change the intonation contour, can we change the function of this utterance? Remember that all the constitutive conditions still hold and the paralinguistic features are unchanged - A still speaks with a straight face, unmarked voice quality, etc. What happens now if A utters the sentence on a rising intonation? Does it still have the force of a command, or has it become a question? There seems to me no doubt that the utterance still constitutes a command. A still wishes B to perform x. It may be suggested that this is no longer an unmarked form of a command, or even that the force of the command has been somewhat mitigated, and this may be true, but it seems to me quite clear that the nature of the function has not been changed by changing the intonation contour. The speaker could, if he wished, mitigate the force of the command even more strongly - he might smile, speak in a 'warm' voice, softly and kindly. He may also change the sentence form and produce

I wonder if you'd mind closing the door

and still, in spite of the intonation change and the paralinguistic changes and the sentential change, the utterance will have the force of a command. It is the constitutive conditions which determine this. No matter how friendly the speaker may wish to appear and how hard he tries to achieve this effect by manipulating paralinguistic features etc., given that the constitutive conditions remain the same, the force of the utterance remains the same.

We may note, in passing, that though the speaker may attempt to mitigate the effect of command, the listener may

not 'take' the mitigation if he knows something about the context of situation which leads him to believe that they constitute a mere surface gloss. Thus a small boy who is guiltily aware that he has just stolen some apples, entering the study of a headmaster who is renowned for beating small boys who have stolen apples, would be unlikely to find such mitigation very reassuring. Indeed it is a common literary convention that the villain who smiles and smiles and conceals his evil intentions behind a facade of scrupulous courtesy is a good deal more sinister than the bullying blusterer who overtly manifests his wickedness. There may of course be a mismatch between the illocutionary force intended by the speaker and the perlocutionary effect on the listener (following the distinction drawn by Austin, 1961). The speaker may be genuinely intending to mitigate, to set aside his prerogative of uttering a command, and the hearer may be genuinely incapable of assigning this intention to the speaker. The difficulty for the speaker is that there is no way he can change his utterance so that it no longer has the force of a command, except by an explicit, verbal, statement that the listener is not obliged to obey.

I am suggesting, then, that it is the constitutive conditions which determine the function of the utterance. If the speaker wishes to mitigate that function he may call upon a hierarchy of features: first, the paralinguistic vocal (and other non-vocal) features, then intonation, then sentential choice (which I assume for the moment includes lexical selection, thematising and 'empathy' strategies, etc.). The effect of changing intonation or sentential type is much more limited than the effect of changing paralinguistic features and will fail in its intended effect unless supported by appropriate paralinguistic features. That is to say, if a non-imperative sentence form is chosen

> I wonder if you'd mind closing the door
> Would you, perhaps, close the door etc.

and spoken with a rising (or falling-rising) intonation contour, the effect will fail to be polite and friendly unless accompanied by a smile, a 'warm' voice quality and other friendly-seeming gestures. On the contrary, if the utterance is accompanied by turning away the gaze, no smile and spoken with 'harsh' voice and a rapid, clipped articulation, the listener will have every reason to believe that the speaker is not evincing friendliness.

Let us now turn to consider the relationship between question function and rising intonation. 'Question' is a much harder category to identify than 'command'. Clearly the formal categories, which include rising intonation, are going to prove insufficient to enable us to capture function, and indeed the constitutive conditions proposed by some authors are by no means as clearly articulated as those for commands. Nonetheless we are going to have to rely on constitutive conditions to enable us to identify questions, conditions like if A asks a question of B, A must not know the answer to the question and A must suppose that B does know the answer. Clearly questions are 'directive', in the sense of Jakobson 1959, in that they demand some response, either verbal or non-verbal, on the part of the listener. Thus a question does not seem to be the proper termination of a normal interaction. Flouncing out of the room in response to a question leaves both speaker and listener 'in the air', feeling dissatisfied. And, to this extent at least, there does seem to be a relationship between question function and rising intonation - we do not expect a normal interaction to finish with a rising intonation contour. (I am distinguishing here between a rising intonation contour and a falling-rising contour. The crucial phonetic difference lies in the relative height of the end-point of the contour: the rising contour must rise to high in the speaker's voice range, whereas the falling-rising tone must rise only to mid - if it rises to high it must be identified as a realisation of a rising contour.) A farewell consisting of 'see you soon' uttered on a rising contour, and not replied to, would leave

the speaker at least, with a feeling of an unsatisfactory termination.

I have already suggested that there does seem to be some evidence that, in the absence of contextual information to the contrary, native speakers will judge utterances spoken on a rising intonation to be 'questions' and utterances spoken on a falling intonation to be 'not questions' (cf. report of SSRC project on Scottish intonation, 1977). However when the same utterances are presented embedded in the context of the spontaneous speech in which they were originally produced, the same judges will assign the opposite function to these utterances. When the extracts are presented in context the judges have access to previous and following utterances and can work out what the constitutive conditions applying at the time must have been. No such inferences can be drawn from the utterances presented in isolation. In this condition the stereotypic relationship between question and rising contour seems to hold. This relationship appears, however, very rarely in texts of continuous speech. How are we to account for this discrepancy?

One way to account for it would be to suggest that, in general, intonation contours contribute very little to the identification of functions in speech. We might propose, then that a neutral intonation carrier (which in RP is certainly a falling contour) will normally occur in speech, subject to the tonal sandhi phenomena which the contour will be subjected to by the systems realising functions ii, iii and iv above (p. 100). This neutral carrier will occur most of the time. The constitutive conditions, recognised by the participants, will make clear the functions, as the dialogue proceeds. The exceptional situation may arise, however, when the speaker, for some reason, wants to mark question function in a very clear way and chooses to do this by a rising to high intonation contour. This seems to me at least a plausible account and it may be in part correct. I shall outline an alternative approach in a moment.

I will consider briefly the association of rising contour with a sentential form other than an interrogative. It has often been suggested that a declarative sentence structure combined with rising intonation would produce a 'question'. Lieberman (1967) correctly pointed out that this combination produces an odd sort of question type. He suggests that the interpretation of his example sentence -

You're really going to drive down that rutted road?

must be as a warning rather than a question. It seems to me that if the sentence were uttered with appropriate paralinguistic features (breathy voice, raised eyebrows, shining eyes) it might well have the force of an admiring comment, expressed in tones of rapturous admiration. Or, indeed, it could be assigned any one of a number of arbitrary functions. We have no way of 'knowing', in the sense intended, what the function of a sentence presented out of context is. The constitutive conditions in the context must determine how the utterance is 'taken'. It does, however, seem to me that one may make a point about the effect of the rising intonation here and it is the same point that I made with reference to commands: rising intonation demands a response.

I should like to suggest that the power attributed to intonation to change the function of an utterance does not, in fact exist. Thus when Hudson (1975) discusses the unmarked form of questions, promises, etc. and nervously adds on each occasion 'keeping the intonation neutral', I think he ascribes more power to intonation than it possesses. It is true that intonation, together with other paralinguistic featues, can modify the force of an utterance to some extent but, as I have tried to show, it is the paralinguistic features which perform the most effective modification. In many of Hudson's examples, the performance of the utterance with the speaker laughing as he spoke would often have a more devastating effect than any intonational modification. But, and this is a crucial qualification, in a real context it may well be that the laugh would still not alter the function of the

utterance, as long as the constitutive conditions remain the same. The difficulty with Hudson's examples lies not in the power of intonation, but in the fact that he is examining sentence tokens out of context. There is no way of specifying the speech function of a sentence token cited out of context, since these functions are essentially discourse functions which arise as a product of all the factors contributing to the discourse - speaker/hearer relationship, context both external and that created by the discourse, genre, topic of discourse, etc.

It seems to me that, rather than attribute the ability to produce 'question function' to rising intonation, we should stay on safer ground and remember what we do know about rising intonation - that it demands a response. It may be objected that this is precisely what questions demand. However if we consider question function to be determined by constitutive conditions, rather than by Jakobson's 'directive' function, we may note that, in questions, A is held to ask of B eg. whether x or not - x is the case. That is to say, A asks B for information on some topic that A does not have information on or asks B to confirm a view of things that A is unsure of. Rising intonation embraces a much wider area than that defined by the speaker requiring information, and in examining discourse, we find rising intonation appearing on information units which cannot be construed as questions in terms of constitutive conditions. I do not think we can safely yoke questions and rising intonation together. Rising intonation appears to have a clear function in the regulation of turn-taking in conversation (heading iv, above, p. 100). It typically appears in turn-final position and demands a response from the interlocutor. I would suggest then, that we include rising intonation under this head as a special, marked, mode of giving away a turn, while clearly showing that this is not the end of the discussion, demanding a response. We may then view those special instances of speakers using rising intonation on interrogative forms during monologues, 'rhetorical questions', as an overt

indication by the speaker that he is constructing a dialogue situation in which he asks a question in his persona as A and answers himself in his persona as B. You may ask what is gained by taking rising intonation out of its traditional association with questions and putting it into association with the category of turn-taking mechanisms. My answer is that this, at least, has the advantage of making it quite clear that intonation has no power to 'change' speech function.

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FN I have to thank my colleagues on the SSRC funded research project on the intonation of Scottish English, Joanne Kenworthy and Karen Currie, for much helpful discussion, as well as Anthony Fox, Robin Fawcett and Roger Lass, who commented on an earlier version of this paper. Except where specific reference is made to the intonation of Scottish English, the terms of description in this paper apply to RP, the 'non-local' accent of England.

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PROBLEMS IN TESTING THE INTONATION OF ADVANCED FOREIGN LEARNERS

1. Introductory comments

An examination of the literature on the testing of English as a foreign language, and particularly on the testing of the spoken language over the past couple of decades has revealed a very worrying situation as far as the testing of intonation is concerned. The impression one gets when going through the relevant books and journals is that writers on the testing of English proficiency split roughly into two groups: those that either totally omit this topic from their work or deal with it in as superficial and brief a way as possible, and those that do make a serious attempt at discussing it.

The writers who either do not deal with this problem at all, or deal with it very cursorily are doing a great disservice in my opinion. Such an approach implies, by omission, particularly to the young teacher searching for guidance in such matters as testing, that intonation does not need to be tested and, if that is the case, one must draw the conclusion that correct intonation is not very important. Notable among the linguists who have written major works on language testing and yet belong to this group are Harris (1969) and Heaton (1975). Harris has a whole chapter entitled "Testing Oral Production", but still makes no reference to intonation. Heaton, in his chapter "Oral Production Tests" does make reference to intonation, but this is dealt with very much in passing and in no detail. Intonation, in my opinion, is a very important component of the spoken language.

While I criticise the first group for omitting intonation from their discussion of language testing, I must also

criticise those who do discuss the testing of intonation for giving what I consider to be a false impression - that we have a fairly clear idea of what intonation is, of how the system operates as part of the whole language system, and of how to test intonation in a reliable and valid way. This criticism will be exemplified and expanded on in the relevant sections of this paper.

I shall argue that what we know about the testing of intonation is still very inadequate, and I shall attempt to outline some of the major problems which are still unsolved. I do not for one moment claim to have the answers, but it is my belief that we cannot even begin to solve the problems until we have clarified for ourselves what they are. Wherever possible, I make tentative suggestions which will, I hope, be found useful.

2. What do we understand by the term "intonation"?

2.1. The traditional foreign language teacher's conception of intonation. The most common conception of intonation in the literature on language testing is that intonation is concerned with pitch-patterning (whether an utterance is said on a falling or a rising pitch, for example) and that is all. The most notable writer in this field to give this impression is Valette (1967). Valette's notion of intonation is equivalent to what Brown (1977) calls the "limited definition" of intonation i.e. "variation in direction of the pitch of the voice of the speaker". Following the work of Halliday (1967), I wish to argue that there is more to intonation than this, and that pitch-patterning, or "tone" as Halliday calls it, is only one of three co-existent sub-systems which together make up intonation. What is more, I shall argue in section 6 below, that tone is the most variable and the least measurable and assessable of the three sub-systems. Ironically, the most common way in which intonation is tested by foreign-language teachers, if it is tested at all, is by listening to the pupil's speech and deciding, according to some predetermined (but

not usually satisfactorily defined) notion, how deviant his pitch-contours are.

2.2. Halliday's (1967) conception of intonation (as followed in this paper). In "Intonation and Grammar in British English" (1967), Halliday describes the three sub-systems of "tonality", "tonicity", and "tone", and provides the following definition of intonation (p. 18):

> It can be seen, therefore, that in any utterance in English, three distinct meaningful choices or sets of choices, are made which can be, and usually are, subsumed under the single heading of "intonation". These are: first, the distribution into tone groups - the number and location of the tone group boundaries; second, the placing of the tonic syllable (...) - the location, in each tone group of the pretonic and tonic sections; third, the choice of primary and secondary tone. I propose to call these three systems "tonality", "tonicity" and "tone". The three selections are independent of one another.

If we reject the limited definition of intonation in favour of Halliday's three sub-system definition, any measurement of intonation must account for all three of the sub-systems and not just for tone.

In sections 4, 5 and 6 below, I shall offer some suggestions as to how to assess each of these sub-systems, but prior to that, I wish to discuss briefly the problems of the selection and elicitation of data for assessing intonation.

3. The data

3.1. Free speech or reading passage? Assuming that the students in question are literate, the question arises whether their intonation should be judged on the basis of their free speech (see section 3.2. below) or on the basis of a passage which is read aloud. Arguments for and against both of these types of data may be found in the literature, and I am in agreement with those who argue that there is a difference between "reading intonation" and "speaking intonation".

I would argue for the assessment of equal-sized chunks of free-speech and reading data.

The benefits to be derived from using the reading passage are great. Firstly, the test-constructors have full control of the passage to be used, and therefore of the data to be assessed. The other major benefit is that comparability is achieved - one of the most awkward aspects of assessing intonation on the basis of free speech is the fact that each examinee says something different, and comparability is lost, or is at best, limited. As to the choice of the passage, it would seem advisable to choose a passage whose lexis and syntax are well within the ability of the students. I see no point in using a passage which is too difficult for them, since this is a test of intonation, not of reading comprehension, and if the passage is very difficult, one is likely to get a hesitant, stuttering, word-by-word, or even syllable-by-syllable reading, from which it will be virtually impossible to assess intonation. From my own experimentation I have found that dialogue is very suitable for this type of test since it tends to provide a greater range of pitch-contours within a short passage than a piece of prose narrative does.

On the other hand, to judge intonation solely on the basis of a reading passage would not provide a full picture. Bearing in mind that the students being assessed are advanced, I feel that their intonation should also be examined when they are producing free, uncontrolled speech. Under such conditions we can best judge the impression that their intonation makes when they are speaking in the foreign language. Comparability, something so prized in language testing, is, of course, lost. However, a compromise between fully controlled speech and fully uncontrolled speech could be reached in the following way: the students could be asked to retell a story that they had been given to read previously in their mother-tongue. Or, for those who dislike the use of the mother-tongue lest this be labelled a translation test (which I dispute), the students could be asked to retell the plot of a film-strip or of a set of pictures. By using such

techniques, free speech with controlled content is achieved, and this makes for partial comparability.

3.2. Free speech or specifically elicited utterances?

The literature on language testing is peppered with examples of intonation tests in which the students is required to make fixed controlled responses to stimuli provided in various forms (many of the elicitation techniques are very similar to the traditional structural drill in the language laboratory). I am opposed to such tests for several reasons. Firstly, they imply that we know exactly what intonation contour must be used in response to these stimuli. As I shall discuss below, I do not believe this to be possible most of the time. Consequently the "objectivity" often argued for with such techniques is not objectivity at all. Secondly, these stimuli are often given out of context, making the whole exercise pointless. In my opinion, given a little imagination, there must be several different intonation contours which would fit in with most of these stimuli. As Lado (1961: 121) says:

> One knows the intonation of a language when he can produce and recognize functionally the intonation patterns of the language in the stream of speech.[1]

Thirdly, and this links with what I said in section 3.1. above, this would not provide a picture of an advanced student demonstrating his real intonation. Consequently, I would wish to assess "speaking intonation" on the basis of free connected discourse elicited in the way suggested above.

The following three sections deal with the assessment of Halliday's three sub-systems of tonality, tonicity and tone which together make up intonation.

4. The assessment of tonality

Tonality is defined as "the distribution into tone groups - the number and location of the tone group boundaries".

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[1] My underlining

(Halliday 1967: 18).

Of the three sub-systems of tonality, tonicity and tone to be discussed, the one which is least discussed in the literature is tonality.

The way one chooses to divide one's utterances into tone groups should reflect the way the information is being conveyed. As Halliday says (p. 22): "Each tone group is then considered to contain one major information point". Foreign learners may be deviant in their tonality in that the tone groups into which they divide their speech may not be the substantial realization of information units - they may divide their speech into more or into fewer tone groups than a native speaker would.

If one is to be able to claim that one is assessing the students' intonation, then this aspect of intonation must be included, along with tonicity and tone.

In the reading passage it is not too difficult to establish norms of tonality, by examining the tone group divisions of a control group of native speakers. Despite differences that will surely be found, it should be possible to determine, with a fair degree of accuracy, where it is "permissible" and where it is not "permissible" to place tone group boundaries.

In a free speech passage such a procedure is, of course, not possible. Mendelsohn (1977) attempted to determine whether a group of native speakers of Hebrew were placing the tone group boundaries in "unacceptable" places in terms of the syntax. He determined the tone group boundaries following Rees (1975: 16), not Halliday's (1967) procedure, since it was found to be unhelpful and circular in places, and used the phonetic cues of pause marker, length marker and pitch marker. This procedure, examining boundaries in terms of the syntax, proved unhelpful in deciding on deviance in tonality: Mendelsohn (1977: 196) says:

> Sixty-five of the eighty-one boundaries of the non-natives occurred at places where the native had also placed boundaries... The remaining 16 tone group boundaries occurred in 11 different places which did not occur in this particular sample of native speech but seemed to occur in predictable places quite likely to be found in the speech of native speakers ...

It should be borne in mind that for the purposes of this small pilot study, he specifically used the speech of the two non-native speakers who had the highest number of tone groups in the entire corpus.

Mendelsohn (1977) then proceeded to establish norms for the group of non-native speakers in the following way: the number of tone groups used by each and every native speaker in the control group was counted on an identical-length passage of free speech, and the upper and lower limits of the number of tone groups for native speakers was determined. This was recognized as the "acceptable range" of number of tone groups for the foreigners. While such a procedure is fairly crude, and does not provide information as to specific tone group divisions, it does provide an overall picture as to whether the examinee's tone group division is within an "acceptable" range. The argument that Mendelsohn uses in justifying such a procedure is that it shows up the students whose tone group divisions are so deviant that this would disturb a listener making an overall global assessment of their speech.

5. The assessment of tonicity

Tonicity is defined as: "the placing of the tonic syllable /.../ - the location in each tone group of the pretonic and tonic sections". (Halliday 1967: 18).

Tonicity is usually mentioned in the literature on the testing of the spoken language, and is not something unfamiliar to the foreign language teacher.[1]

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[1] Some authors treat tonicity as defined in this paper as part of stress, but I prefer to reserve the term "stress" for word stress, and to see tonicity as part of the intonational system, since it is conditioned by the nature of the information being imparted by the whole information unit.

Halliday relates the placing of the tonic to the notions of "given" and "new" information contained within the information unit (i.e. within the tone group). Halliday (1974: 13-14) states the following:

> The syllable on which the tonic prominence falls is the last accented syllable of the New. The element bearing the culminative tonic accent is said to bear the 'information focus'.

He goes on to say: "When the final element is New, what precedes it may be either Given or New. In all other instances, i.e. when some non-final element is presented as New, then every other element in the information unit is thereby signalled as Given". He defines Given as "treated by the speaker as recoverable to the hearer from the environment", and New as "non-recoverable".

The tonic, then, may occur in places other than on the last lexical item either if it is followed by Given information in the tone group, or in order to be contrastive.

With the definitions mentioned above, it is possible to note deviant tonicity.

As with the assessment of tonality, the assessment of tonicity in the reading passage does not pose a very serious problem, provided that a control group of native speakers has been recorded reading the same passage. It is possible to decide where it is acceptable, and where it is unacceptable to place the tonic and then to count the number of instances of deviant tonicity for each of the examinees.

In a free speech passage, basically the same procedure may be followed, but, of course, what will not be available is the yardstick of the control group's performance, against which to measure the foreign learner. This makes assessment more difficult, and less reliable. The only solution to this problem is to examine the placing of the tonic in each tone group of each of the students, and then to have one or preferably more than one colleague make a similar assessment in order to obtain greater reliability. This follows the principle of "team marking", that provided there is a basic similarity between the marking of individual judges, the greater the number of judges, the greater the reliability.

This idea is expressed in very strong terms by Wiseman (1949: 203) who suggests that one could "postulate a true mark which would be that given by the pooled judgment of an infinite number of markers".[1]

The sub-system of tonicity is, then, the least problematic of the three to assess.

6. The assessment of tone

Tone is defined as "the choice of primary and secondary tone". (Halliday 1967: 18). As has already been stated in section 2 above, this sub-system of intonation, concerned with pitch movement, is extensively attempted by foreign language teachers, but it is my contention that at the stage that research on intonation has reached, tone cannot yet be validly and reliably assessed. For reasons that I shall discuss in some detail in sections 6.1. - 6.3. below, the conclusion that I am forced to draw is that the foreign language teacher is not able at present to assess the tone of his learners validly and reliably even if he believes that he is.

6.1. Specific tones do not always accompany specific grammatical forms. It has often been argued that certain grammatical forms are always accompanied by particular tones. This must be severely criticised as a highly irresponsible claim. Cruttenden (1970: 187-188) quotes a study by Fries (1964) showing this claim to be quite unfounded and goes on to state: "A particular tune cannot be said to 'mark' a particular sentence-type any more than intonation-group

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[1] Much experimentation has been done showing the reliability of team marking, notably that of Cast (1939), Wiseman (1949), Finlayson (1951), and Pilliner (1973, and numerous replications before and after this date).

boundaries may be said to mark clauses or sentences".

Kenworthy (forthcoming) quotes the claim by Quirk et al. (1975: 7.45):

> Questions are sentences marked by one or more of these three criteria: a) the placing of the operator immediately in front of the subject; b) initial positioning of an interrogative or wh-element;[1] c) rising intonation.

Quirk et al. then go on to discuss the declarative question which "is identical in form to a statement, except for the final rising question intonation" (7.50:195). Kenworthy then reports on the findings of her research on Scottish English, which suggest that what Quirk et al. argue is probably not correct:

> In our corpus we have many examples of what we consider to be declarative questions. However, none have rising intonation - all have low falling intonation.

These are just two examples showing that a claim like the one referred to above is not empirically sound - tone is not fully predictable from the grammar. Or, to state this from the standpoint of the foreign language teacher, one cannot with any degree of certainty, score for a particular pitch contour on the basis of the grammar.

6.2. Dialectal and idiolectal variation in tone. Recent research, notably that of Brown (1977), has shown that there is a great degree of variation in tone between different dialects:

> Tone ... varies very much between accents; very markedly so even within the accents spoken in Britain, and, within accents, varies to some extent with the individual. (Brown: 1977).

In a personal communication, Brown has gone so far as to suggest that apart from the final tone group in a larger utterance, which invariably contains a fall-to-low, it is virtually impossible to listen to a group of foreign learners and to score them for "deviant tone" in any sort of valid and reliable way.

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[1] Markers a) and b) are irrelevant to our discussion.

6.3. The "mirage effect" when assessing tone. Gunter (1972: 198) makes the following statement which is directly related to Brown's claim mentioned above:

> There are sentences that can take many different intonations; there are intonations that can occur with all sorts of sentences; and - most telling of all - there is no string of words that has one necessary intonation.

Mendelsohn carried out a pilot study attempting to score for deviant tone, and found Brown and Gunter to be absolutely correct (Mendelsohn 1977: 188):

> Initially one notes several seemingly deviant tones. However, on reconsidering them, one decides that most of those already listed are not deviant at all. And then, referring those that are left to a second judge often results in one being convinced that these, too, are acceptable. Virtually for every example, it is possible to put forward a counter-argument rejecting one's claim of "deviance".

6.4. Tone is not an easily isolated system. A final problem when attempting to assess deviance in tone is that there are many other parameters which operate together with tone and cannot in effect be separated from it. This is very forcibly argued by Pike (1967: 2):

> Various related phenomena, however, were interwoven with the pitch action: rhythm, stress, quantity, pause, sequences of contours, style, voice quality, emotion, mental attitude, dialectal differences, syntax, morphology (including compounding) and so on.

7. Concluding comments

In section 1 I criticised those who write on the testing of the spoken language and ignore intonation, and I also criticised those who give the impression that there is no particular problem in testing intonation.

In this paper I have attempted to argue, first of all, that intonation is an important parameter of the spoken language and should not be ignored. And in the latter part of the paper, I have attempted to point out some of the unsolved problems, particularly in the assessment of tone,

facing anyone wishing to assess the mastery of intonation by foreign learners.

Only when these problems have been solved will it be possible to reach a valid and reliable assessment of intonation as a whole. This could then be achieved by conflating the results obtained on each of the three sub-systems into one score.

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