

JANETE MARI LICHNHAKI

WILL E SHALL - UMA ANÁLISE DE
SEUS USOS NO INGLÊS CIENTÍFICO
E LÍNGUA INGLESA EM GERAL

Dissertação para obtenção do grau de
Mestre, Área de Concentração: Língua
Inglês, do Curso de Pós-Graduação em
Letras. Setor de Ciências Humanas,
Letras e Artes da Universidade Federal
do Paraná.

CURITIBA.

1983

PROFESSORA ORIENTADORA

Doutora Otília Arns

Titular de Língua e Literatura
Inglesa da Universidade Fede-
ral do Paraná.

PROFESSOR CO-ORIENTADOR

Professora Dra. Cecília Ines Erthal
Professora de Língua Inglesa, Dou-
tora em Semântica.

AGRADECIMENTOS

Ao professor Dr. Guido Irineu Engel, professor de Métodos e Técnicas de Pesquisa da Universidade Federal do Paraná, pela sua valiosa contribuição na parte de Estatística.

Aos demais, que, de uma forma ou outra contribuíram para a realização deste trabalho.

SUMÁRIO

	Página
Resumo	viii
Abstract	ix
1. Introdução	1
1.1. Tema e Justificativa	1
1.2. Problema da Pesquisa	3
1.3. Objetivos	5
1.4. Metodologia	5
1.5. Limitação da Pesquisa	10
1.6. Terminologia	11
2. Fundamentação Teórica	13
2.1. Semântica da Modalidade	13
2.2. Realização da Modalidade	15
2.2.1. Expressão da Modalidade	15
2.2.2. Características Morfológicas dos Auxiliares Modais	17
2.2.3. Características Sintáticas dos Auxiliares Modais	19
2.2.4. Variação e Evolução dos Modais	22
2.3. Estudos sobre Will e Shall	30
2.3.1. Otto Jespersen	30
2.3.2. Geoffrey N. Leech	48
2.3.3. F. R. Palmer (1974)	65
2.3.4. F. R. Palmer (1979)	83
2.3.5. Estudo Comparativo de Palmer (1974) e (1979)	103
3. Avaliação dos Modelos	110
3.1. Instrumentos de Avaliação	110
3.1.1. Ambigüidade	110
3.1.2. Generalização	111
3.1.3. Distinções Formais	112
3.1.4. Validade Teorética	112

4. Resultados da Aplicação Prática do Modelo Adotado	129
5. Conclusões Lingüísticas	138
6. Implicações para o Ensino	144
Referências Bibliográficas	145
Anexo 1 - Cálculo do X^2 por Auxiliar Modal	147
Anexo 2 - Textos Pesquisados	155
Textos de Engenharia Mecânica	156
Textos de Botânica	198
Textos de Medicina	227
Textos de Inglês em Geral	284

RESUMO

No presente trabalho, fez-se um estudo dos usos dos auxiliares modais *WILL* e *SHALL* baseando-se nas obras de Jespersen, Leech e Palmer.

Tentou-se estabelecer os usos realmente distintos destes dois modais partindo de textos científicos de Engenharia Mecânica, Botânica, Medicina, e de Inglês Geral.

Estudados os três autores supra-citados verificou-se a necessidade de se fazer um estudo da obra mais recente de Palmer "*Modality and the English Modals*" (1979). Esta obra pelas modificações propostas, apresentou melhores condições do que as anteriores para servir de modelo a esta pesquisa.

Procedeu-se em seguida à coleta e análise dos dados extraídos de textos científicos e a posterior análise estatística. Para que se obtivesse uma certeza maior quanto à fidedignidade da classificação dos usos modais de *WILL* e *SHALL* aplicou-se o teste do X^2 ou teste de Pearson.

Concluiu-se que os usos comuns nas quatro áreas podem ser considerados como sendo características da língua, enquanto os variáveis são características da área em questão.

Concluiu-se também que pelo fato dos usos modais de *WILL* e *SHALL* variarem por área, é importante o seu ensino aos alunos que utilizam textos específicos em inglês como meio de aumentarem seus conhecimentos em diversas disciplinas do seu curso de graduação.

ABSTRACT

The present study consists of an analysis of the uses of the modal auxiliaries *Will* and *Shall* based on the studies carried out by Otto Jespersen, Geoffrey Leech and F. R. Palmer.

The identification of the distinct uses of these two modal auxiliaries in texts of Mechanical Engineering, Botany, Medicine and General English was the main aim of this research.

After studying the subject according to the three authors mentioned above, it proved to be necessary to review a more recent study on this theme provided by F. R. Palmer in his book "Modality and the English Modals" (1979).

The modifications proposed by the author were to be the framework adopted in this research.

The collection of data and the statistical analysis were made; and the X^2 test or Pearson's test was applied to get a more accurate analysis.

The results showed that the common uses in the four areas studied can be considered as characteristics of the language in general whereas the variables are characteristics of the studied areas.

This research also showed that as the uses of the auxiliary modals *Will* and *Shall* vary according to the areas, the teaching of these uses is important to the students that need reading specific texts in English as a means of learning their own major subjects.

1. INTRODUÇÃO

1.1. TEMA E JUSTIFICATIVA

A língua inglesa apresenta um número variado de significados para os mesmos modais, o que, ao mesmo tempo que a enriquece, dificulta sua compreensão. Diz Widdowson¹ que tanto o escritor literário quanto o técnico usam a língua para comunicar aspectos da realidade que não são imediatamente visíveis para os leitores em geral, fazendo uso dos mesmos componentes de uma língua com finalidades diversas das usadas comumente.

Se os auxiliares modais apresentam um número de usos ou significados formalmente distintos, cuja frequência relativa parece variar de acordo com a função comunicativa do discurso, e, se for tomada em consideração que a função comunicativa do discurso ou dos textos também pode variar de acordo com a disciplina ou ciências envolvidas, é possível verificar se a ordem de apresentação destes modais, extrapolada do "syllabus" da disciplina Língua Inglesa em Geral, é, ou não, adequada para todos os alunos, principalmente para aqueles que necessitam do inglês para ler textos de suas disciplinas específicas em língua inglesa.

Sabe-se da dificuldade que há na transição da compreensão

¹ WIDDOWSON, H. G. Literary and Scientific Uses of English. English Language Teaching Journal. London (28) 4:283, Julho 1974.

e aprendizagem do inglês em geral, isto é, do conhecimento de sentenças e vocabulário aprendidos simplesmente do Inglês, usado para comunicação, para um conhecimento de como a língua é usada em comunicação científica e técnica. Ewer² diz existir uma certa discrepância entre os programas usados em cursos de inglês em geral e de inglês voltado para a ciência ou para a tecnologia, e diz que estas discrepâncias ou diferenças podem ser classificadas em duas categorias: na primeira, o autor inclui os itens que são essenciais à aprendizagem do inglês científico básico e que não são apresentados e exercitados nos cursos por ele pesquisados. Na segunda categoria, ele inclui itens essenciais ao inglês científico básico, mas que não são apresentados e exercitados em alguns dos cursos pesquisados, chegando mesmo às vezes a ser trabalhados inadequadamente. Depreende-se destas afirmações a necessidade de gramáticas apropriadas que retratem os diversos setores nos quais diverge a língua usada para o estudo do inglês em geral, isto é, a simples comunicação da língua usada para fins de ciência ou tecnologia.

Como na maioria dos cursos de língua inglesa, os modais *WILL* e *SHALL* são apresentados como meros auxiliares na expressão de futuro, e não como verbos capazes de expressar modalidades diversas, e somando-se a isto o fato de que seus usos pareceram variar de um tipo de texto para outro, é que se torna necessário este tipo de estudo. Estudo este que não pretende esgotar o assunto e que constará de um exame dos estudos realiza-

² EWER, J. R., HUGHES-DAVIES, G. Further Notes on Developing an English Programme for Students of Science and Technology (I). English Language Teaching. London (26) 1:67, Outubro 1971.

dos por alguns autores modernos com relação aos usos ou significados dos modais *WILL* e *SHALL*, e a ocorrência destes usos em textos de inglês em geral e de textos de inglês científico e técnico.

Entretanto, faz-se importante notar que esta análise é, antes de tudo, somente uma tentativa de investigar a ocorrência e a frequência destes dois modais à luz de estudos realizados anteriormente, bem como de estabelecer seus diferentes usos dentro dos contextos relativos às quatro áreas de inglês propostas.

1.2. PROBLEMA DA PESQUISA

As gramáticas prescritivistas, bem como aquelas que usam exemplos de textos clássicos ou exemplos do uso quotidiano, isto é, as gramáticas tradicionais, são quase que exclusivamente formais. Fornecem listas de usos onde às vezes são salientados aspectos semânticos dos modais, porém sem apresentar generalização. Outras gramáticas acentuam por sua vez em demasia os aspectos semânticos, deixando de lado aspectos formais igualmente importantes. Palmer¹ diz que qualquer estudo que envolva modalidade e modais deve ser tanto semântico como formal, retratando assim o mais possível aspectos comuns a mais de uma língua, e possibilitando também o uso de termos gramaticais comuns.

As gramáticas atuais apresentam descrições sincrônicas, porém nenhuma delas apresenta com exatidão os usos que realmen-

¹ PALMER, F. R. Modality and the English Modals. London, Longman Group Ltd., 1979, p. 1.

te aparecem em todas as variedades da língua inglesa, tornando, assim, difícil a tarefa do professor, que continua sem saber quais os usos modais próprios de cada área científica. Outro fator que causa dificuldade e é abordado pela maioria dos gramáticos com relação ao assunto "*modais*" é o uso que expressa referência futura. *WILL* e *SHALL* são então considerados quase que exclusivamente como capazes de expressar tal referência, sendo que os demais usos modais destes dois auxiliares são relegados a segundo plano. No entanto, talvez sejam os mais importantes, pois sabe-se que não só *WILL* e *SHALL* expressam referência futura, mas também o fazem modais como por exemplo, *MAY*, *CAN*, *MUST*, etc.

Wekker¹ explica a dificuldade que existe para se distinguir entre os vários usos modais de *WILL* e *SHALL* e o de referência futura, pois se o modal *SHALL*, qualquer que seja o seu significado modal, tem sempre tal referência, o mesmo não ocorre com *WILL* que somente a apresenta em alguns de seus usos, o que dificulta sua distinção. Ocorre ainda que quando existe necessidade de se consultar uma lista de usos destes dois auxiliares modais, depara-se com inúmeros usos dos quais mesmo os autores mais afamados divergem, percebendo-se então que classificações propostas são passíveis de discussão. Problemas como estes não foram solucionados nem mesmo pelas teorias lingüísticas mais recentes, tais como o estruturalismo de Bloomfield e seus seguidores, ou mesmo pelos gramáticos gerativos que continuaram somente a considerá-los como auxiliares e a estudar os

¹ WEKKER, H. CHR. The Expression of Future Time in Contemporary British English. Holland, North - Holland Publishing Company, 1976, p. 2.

seus aspectos formais não demonstrando interesse maior pela questão dos seus usos ou significados. Estes fatos ilustram a necessidade de se tentar estabelecer a partir das teorias e significados expostos por alguns autores, que serão abordados minuciosamente no capítulo 2 deste trabalho, os usos ou significados modais de *WILL* e *SHALL*. A partir daí será possível então, medindo a sua frequência em textos científicos, e de inglês em geral selecionados para este fim, tentar estabelecer os usos realmente diferentes destes modais nas quatro variedades em questão da língua inglesa. O estabelecimento de tais usos talvez seja de interesse para os professores e alunos que necessitam sobremaneira da língua inglesa para estudar as disciplinas cuja literatura é composta na sua quase totalidade por textos em língua inglesa.

1.3. OBJETIVOS

Pretende-se, com a presente pesquisa, atingir os seguintes objetivos:

1. Revisar os usos modais de *WILL* e *SHALL* estabelecidos por alguns autores modernos e estabelecer os usos realmente distintos destes dois modais.

2. Estabelecer através da pesquisa os usos modais mais frequentes de *WILL* e *SHALL* em textos de Engenharia Mecânica, Botânica, Medicina e Inglês em Geral.

1.4. METODOLOGIA

Uma sentença modalizada é aquela cuja verdade da proposi-

ção está sujeita a alguma contingência ou modificação imposta pela sua parte não modal, segundo Wilkins¹. Perguntamo-nos, então, se, dependendo do modal empregado na linguagem (nas sentenças), ter-se-ã conjuntos de significados próprios para os modais de acordo com as variedades lingüísticas de uma língua, isto é, nas diversas variedades da língua inglesa repetem-se usos determinados entre os vários apresentados pelos modais em inglês?

Partindo desta indagação este estudo se propõe a realizar um levantamento dos modais *WILL* e *SHALL* e suas ocorrências em textos científicos em língua inglesa e de textos de inglês em geral, existentes nas bibliotecas de alguns departamentos pertencentes a esta Universidade, e que ao mesmo tempo sejam realmente utilizados pelos alunos de tais departamentos, quer dos cursos de graduação ou de pós-graduação.

Pensou-se a princípio em um maior número de áreas, mas após algumas leituras e comparações chegou-se à conclusão de que o ideal seria executar-se um trabalho com três áreas científicas e textos de língua inglesa em geral extraídos de jornais, periódicos, e revistas não-científicas, isto é, de abrangência mais popular, porém que apresentassem linguagem de cunho mais formal ou científico.

1. *Seleção das áreas*: Foram selecionadas para esta dissertação áreas que apresentassem características marcantes em sua linguagem. Entre as muitas áreas científicas oferecidas pela Universidade Federal do Paraná, selecionou-se *Engenharia Mecânica* por ser tipicamente instrucional, de apresentar funções

¹ WILKINS, D. A. Notational Syllabuses. London, Oxford University Press, 1976. p. 38.

de dar ordens, expor métodos, descrever como as coisas operam. Como segunda área escolheu-se *Botânica*, pois além de expor métodos, apresentar experimentos, expressar semelhanças e diferenças, é uma linguagem fortemente descritiva. Foi escolhida *Medicina*, pois, além de persuadir, instruir, expor desenvolvimento de experiências, dar explicações, é tipicamente descritiva e aconselhadora. Quanto ao *Inglês em Geral*, foram escolhidos textos desta área porque esta apresenta características gerais da língua em questão.

2. *Escolha de WILL e SHALL*: Na impossibilidade de se realizar um trabalho que incluísse todos os modais, o que, conforme o modal (*MAY e NEED*), por exemplo, não seria necessário ou urgente, selecionou-se os auxiliares modais *WILL e SHALL* que pelo fato de terem o seu uso em "referência futura" enfatizado e os seus usos modais (volição, poder, etc.) ignorados, apresentam grau de dificuldade maior no que diz respeito à aprendizagem e entendimento por parte de alunos cuja primeira língua seja o Português.

3. *Seleção dos textos científicos*: Para a seleção dos textos científicos de *Engenharia Mecânica, Botânica e Medicina*, foram utilizados levantamentos estatísticos realizados periodicamente nas bibliotecas dos respectivos Departamentos. Na área da *Medicina* foram examinados os textos mais lidos por alunos da graduação e da pós-graduação. Estes textos são formados por súmulas de pesquisas e relatórios elaborados e descritos por cientistas do mundo todo e publicado em língua inglesa por instituições médicas afamadas. Para que o "corpus" se tornasse o mais abrangente possível, escolheu-se um entre os vários livros mais lidos pelos alunos da graduação. Na área da *Botânica*

foram usadas também as estatísticas existentes na biblioteca do respectivo departamento. O material selecionado é composto por revistas e periódicos de cunho estritamente científico publicados em inglês por importantes instituições mundiais, bem como pelo livro mais lido pelos alunos dos diversos cursos de cujo currículo faz parte a *Botânica*. Adotaram-se os mesmos critérios com relação à escolha dos textos de *Engenharia Mecânica*, porém, quanto aos periódicos, a possibilidade de seleção não foi tão grande como nas áreas anteriormente expostas, o que tornou obrigatória a utilização do que era oferecido, isto é, revistas de *Engenharia Mecânica*, de aceitação mais popular, porém que oferecessem linguagem mais formal. A seleção dos textos de *Inglês em Geral* foi feita com o auxílio de um falante nativo professor de *Linguística Inglesa*. Foram, portanto, escolhidos para esta dissertação os periódicos de maior tiragem e aceitação em língua inglesa. Tomou-se o cuidado de limitar também a linguagem a ser examinada. Para isto foram excluídos os períodos em que ocorriam: formas interrogativas, por serem sempre na sua grande maioria de caráter retórico; abreviações tais como: 'll, 'd, n't, e diálogos para evitar a inclusão de linguagem menos formal para que fosse possível manter-se o mesmo padrão lingüístico em todas as áreas.

4. *Extensão do Corpus*: Foram lidas 250.000 palavras de cada área, totalizando 1.000.000 de palavras. Para tanto foi examinada uma página em cada quatro de cada livro ou periódico.

5. *Levantamento dos Significados de WILL e SHALL*: Foram lidos três dos mais representativos gramáticos da língua inglesa: Otto Jespersen, Geoffrey Leech e F. R. Palmer, para que se pudesse fazer um levantamento total dos significados dos dois

modais escolhidos. Escolhemos Otto Jespersen por ser o primeiro gramático que, juntamente com Poustma e Kruisinga, deu origem a uma linha de estudos dentro da linha tradicional, a qual entrou em conflito com os conservadores, que consideravam para suas descrições da língua somente a escrita formal, e se baseavam nas antigas gramáticas clássicas (latim e grego), inclusive escolhendo dos clássicos da literatura os exemplos para suas ilustrações.

Os gramáticos descritivos ou históricos como Jespersen, o qual é considerado até hoje um dos mais importantes gramáticos da língua inglesa, passaram a considerar o uso da língua (escrita e falada) fator determinante da gramática e, consequentemente, a estudar somente textos em inglês, de autores diversos. Para autores como Jespersen, portanto, a língua deve ser a base da gramática.

Outro aspecto importante para a inclusão de Otto Jespersen como um dos autores estudados nesta dissertação é o fato de sua gramática "*Essentials of English Grammar*", publicada pela primeira vez em 1933, evidenciar desejos de impor pela primeira vez um padrão lingüístico na sociedade da época.

Por sua vez Geoffrey Leech, que foi o segundo autor escolhido por sua obra sobre os modais, além de ter características da assim chamada gramática tradicional, apresenta tendências mais comunicativas que estruturais, enfatizando o uso dos modais na função comunicativa da língua e não na sua estrutura lingüística, dando, portanto, uma nova visão da língua inglesa.

Foi escolhido também F. R. Palmer, por seus estudos e publicações no mundo todo bem como por seu conhecimento sobre o verbo em inglês, mais especificamente os modais da língua in-

glesa, o terem posicionado como maior autoridade no verbo inglês atualmente do mundo.

6. *Elaboração de tabelas*: A respeito da elaboração da tabela de usos modais de *WILL* e *SHALL* foram utilizados os usos propostos por Palmer (1974), porém, notou-se que além do número de usos fornecidos ser muito elevado e conduzir a uma série de interpretações ambíguas, também não cobria as necessidades deste trabalho. Partiu-se, portanto, para o estudo de Palmer (1979), o qual provou que, com algumas adaptações que tomou-se a liberdade de executar, é sem dúvida, a mais adequada das propostas apresentadas pelos autores estudados.

7. *Análise Estatística dos Dados*: Após a classificação dos dados extraídos dos textos lidos, de acordo com a tabela elaborada a partir de Palmer (1979), organizaram-se tabelas demonstrativas para os percentuais, e para a frequência. Finalmente para a verificação da significância da distribuição dos usos por área e por modal, foi aplicado o teste de X^2 .

1.5. LIMITAÇÃO DA PESQUISA

Apesar de se estar estudando variação não é propósito desta dissertação realizar um estudo estilístico dos auxiliares modais *WILL* e *SHALL*, pois não se busca correlacioná-los com parâmetros não lingüísticos. Nesta pesquisa estudar-se-á somente a linguagem escrita e o que for relacionado com a competência do falante-escritor de língua inglesa. Dentro dos textos estudados examinar-se-á somente o que não for formado por diálogos e não aparecer em formas abreviadas como 'll, 'd, wouldn't, shan't, etc. Tal posição se tornou necessária, pois se fosse es-

tudado este tipo de linguagem, estariam sendo incluídos textos de estilo menos formal e não adequado a esta pesquisa, na qual o autor deste estudo se propõe a realizar uma análise dos auxiliares modais *WILL* e *SHALL* em textos científicos extraídos de periódicos de cunho científico e de aceitação popular, mas igualmente de linguagem formal.

1.6. TERMINOLOGIA

*Apodosis*¹ = A segunda parte de um período, isto é, a conclusão do período condicional.

*Protasis*² = Uma oração subordinada que expressa condição em um período condicional.

*Modo*³ = Categoria gramatical que consiste em exprimir o modo como se efetua o processo verbal.

*Sincronia*⁴ = Conjunto de fatos lingüísticos num dado estágio de sua evolução.

*Diacronia*⁵ = Estudo da língua através dos tempos, consequentemente, através das transformações que sofre a língua em sua evolução.

*Verbos Catenativos*⁶ = Verbos que juntamente com outros formam locuções verbais.

¹ LONDON GROUP LIMITED. Modern English Dictionary. London, 1976. p. 47.

² Ibid., p. 897.

³ JOTA, S. Z. Dicionário de Lingüística. Rio de Janeiro, Edições Presença, 1976. p. 209.

⁴ Ibid., p. 307.

⁵ Ibid., p. 103.

⁶ HUDDLESTON, An Introduction to English Transformational Syntax. London, Longman Group Ltd., 1976. p. 134.

*Verbos Performativos*⁷ = Verbos que têm a qualidade de tornar um ato de fala passível de ser executado quando a proposição que o contiver for expressa pelo falante.

⁷ PALMER, F. The English Verb. 2^a ed. London, Group Ltd., 1974. p. 16.

2. FUNDAMENTAÇÃO TEÓRICA

2.1. SEMÂNTICA DA MODALIDADE

A modalidade não é somente objeto de estudo dos gramáticos e lingüistas. Também é estudada pelos estudiosos da Lógica. Existem duas noções centrais na Lógica modal; a *Necessidade* e a *Possibilidade* nas quais se baseiam as demais noções utilizadas pelos lingüistas no estudo da modalidade. Até pouco tempo a Lógica modal esteve relacionada quase somente com a modalidade Alêutica, isto é, a verdade necessária ou contingente das proposições. Tradicionalmente se descreve estas verdades necessárias como sendo as proposições verdadeiras em todos os mundos logicamente possíveis. Também as proposições que não são necessariamente falsas, isto é, que são verdadeiras ao menos em um mundo logicamente possível, são assim descritas.

Atualmente são reconhecidas pelos Lógicos outros dois tipos de *Necessidade* e *Possibilidade*; a *Epistêmica* e a *Deôntica*, sendo só a primeira a expressão da atitude do falante, ou melhor, de sua subjetividade.

A modalidade epistêmica não é estudada da mesma forma pelos lingüistas e pelos logistas. De acordo com os lingüistas, a modalidade epistêmica é mais subjetiva que a deôntica, embora ela possa também ser objetiva. De acordo com Lyons¹ a modalida-

¹ LYONS, J. *Semantics*. 2. ed. Cambridge, Cambridge University Press, 1978. p. 805. v. 2.

de epistêmica subjetiva é mais básica do que a modalidade epistêmica objetiva .

A modalidade *Deontica* (termo usado largamente pelos filósofos para fazer referência a um ramo da lógica modal, a lógica da obrigação e da permissão), tem a ver com a necessidade ou possibilidade de atos executados por agentes moralmente responsáveis. Quando alguém impõe sobre outrem a obrigação de executar ou não um ato, não se descreve o presente ou o futuro deste ato, mas em certo sentido, a sentença proferida expressa uma proposição, porém não é a proposição que descreve o ato em si, o que ela descreve é o estado de coisas que se obterá se o ato for executado ou não.

Um enunciado ou uma sentença, então, muitas vezes contém além da proposição uma outra parte muito importante que pode expressar a necessidade ou possibilidade desta mesma proposição, isto é, seu *status*. Segundo Lyons¹ estas proposições podem ser necessariamente verdadeiras, analíticas e tautológicas, contingentemente verdadeiras ou falsas, ou ainda sintéticas. Esta distinção é também imposta pela lógica modal que diz que a proposição é contingentemente verdadeira quando é verdadeira para o mundo ao qual se destina e não para os demais, pois para estes ela poderá ser inexistente ou até mesmo falsa. A verdade analítica por sua vez independe dos estados do mundo, pois é verdadeira para todos os mundos, sendo sua verdade garantida pelo significado das sentenças que fazem parte da sua expressão ou da proposição que a expressa.

¹ Ibid., p. 787.

Como foi visto, o "*status*" da proposição pode ser expresso pelo falante quando então se diz que esta proposição é modalizada, ou melhor, apresenta alguma modalidade. Portanto, a sentença que apresentar simples declaração do fato será considerada não-modalizada.

Entenda-se aqui o sentido dado por Lyons à modalidade: Modalidade é a expressão pelo falante do "*status*" da verdade expressa em uma proposição ou da própria situação que a proposição descreve. O autor considera também em sua obra a existência de duas espécies de modalidade: a. *Deôntica* e b. *Epistêmica*.

Enquanto a primeira está relacionada com a necessidade ou possibilidade de atos praticados por agentes moralmente responsáveis, a segunda está por sua vez relacionada com o falante e seu comprometimento com a verdade da proposição expressa pela sentença ou enunciado que ele profere.

2.2. REALIZAÇÃO DA MODALIDADE

2.2.1. EXPRESSÃO DA MODALIDADE

Segundo Halliday¹ a modalidade pode ser expressa por um ou ambos os elementos; um verbal e outro não-verbal (verbal refere-se ao elemento que funciona sintaticamente como um verbo). As formas verbais que expressam modalidade são os auxiliares modais *WILL, WOULD, CAN, COULD, MAY, MIGHT, SHALL, SHOULD,*

¹ HALLIDAY, M. A. K. System and Function in Language. London, Oxford University Press, 1976. p. 192.

MUST, OUGHT, DARE e *NEED*. Ainda segundo Halliday¹, as formas não-verbais capazes de expressar modalidade são itens lexicais como: *possible, certain, likely, etc.*, que ocorrem em qualquer uma das cinco categorias gramaticais, embora alguns não ocorram em todas as cinco categorias:

- a. Como advérbios: *perhaps, possibly, presumably, obviously...*
- b. Como adjetivos em sentenças (*it is that*): *possible, likely, obvious, conceivable ...*
- c. Como adjetivos em sentenças (*I am that; You are ... that; Are you ... that ... ?*): *sure, certain.*
- d. Como adjetivos em sentenças como (*he is sure to have known*): *sure, certain, likely.*
- e. Como substantivo complemento em sentenças como (*there is a ... that ...*): *possibility, chance, likelihood, presumption ...*
- f. Como verbo - a) principal: *to presume*
b) auxiliar: *may*

Quanto à localização da modalidade na frase, Halliday diz não haver local específico para que ela ocorra:

"There is thus no one single place in the clause where modality is located. It is a strand running prosodically through the clause".²

¹ Ibid., p. 193.

² Ibid., p. 194.

2.2.2. CARACTERÍSTICAS MORFOLÓGICAS DOS AUXILIARES MODAIS

Os elementos verbais que expressam as modalidades são chamados de auxiliares modais por alguns autores tradicionais como Jespersen, Quirk e Palmer. Os gramáticos atuais os consideram como constituindo uma classe à parte dos demais verbos da língua inglesa, isto é, dos auxiliares *BE*, *HAVE* e *DO*; e dos demais verbos, ou melhor, dos catenativos e dos verbos principais. Esta separação é feita levando-se em consideração o comportamento dos modais (*WILL*, *SHALL*, *MAY*, *CAN*, *MUST*, *OUGHT*, *DARE* e *NEED*), que é considerado nitidamente diferente dos demais verbos quanto aos seguintes aspectos morfológicos e sintáticos:

1. Têm somente formas finitas, quer dizer, não pode haver "to shall, shalling". Havendo portanto ausência de flexão para "tense" nos modais.
2. Formam o negativo e o interrogativo sem expansão. Como o negativo "shall not" pode ser reduzido (*shan't*), não necessitam da presença do auxiliar "DO" para a formação do interrogativo e negativo.
3. São usados como "code verbs" em elipses: "Can you swim?, Yes, I can".
4. Têm três valores prosódicos, quer dizer, podem ser não acentuados, podem apresentar acento secundário e primário, sendo a forma não-acentuada normalmente reduzida, apresentando estas variantes diferenças de significados de um modo regular.
5. Diferenciam-se de *BE*, *GET*, *HAVE* e *DO*, pois não admitem a presença da partícula "s" na terceira pessoa do singular, tempo presente. Temos então *He can* e não *He*

cans ou *He musts*. Segundo Halliday¹, a ausência de "s" estaria relacionada não ao fato destas formas não estarem no presente, mas sim, não apresentarem "tense"; então *can go* é como *to go, going* (e não *goes*).

6. Os modais, não apresentam imperativo.
7. São também mutuamente exclusivas, porque duas formas que exprimem modalidades não podem ser usadas na mesma oração ao mesmo tempo. Note-se que, segundo Halliday², quando houver expressão dupla da modalidade, uma deverá ser expressa pela forma não verbal.

He certainly would pay his bills.

8. Os modais só podem ocorrer em posição inicial no grupo verbal, pois, segundo Huddleston³, a propriedade sintática que melhor distingue os modais dos outros verbos é o fato de eles apresentarem somente formas finitas, e como só formas finitas podem ocupar o lugar do primeiro verbo no grupo verbal, então só os modais é que podem fazê-lo. Isto torna também impossível a inversão com os modais, o que é perfeitamente possível com os demais verbos, enquanto que, se ocorresse com os modais, tornaria a frase agramatical.

I want to begin.

* I begin to want.

I ought to begin.

* I begin to ought.

¹ HALLIDAY, op. cit. p. 192.

² HUDDLESTON, op. cit. p. 68.

³ HUDDLESTON, op. cit. p. 57.

2.2.3. CARACTERÍSTICAS SINTÁTICAS DOS AUXILIARES MODAIS

Os modais sintaticamente são parte de locuções verbais e ocupam a posição de verbos auxiliares sendo sempre seguidos de um verbo principal, quando usados em sentenças completas:

John *will* go to the movies with Mary next Sunday.

Ocorrendo em sentenças curtas, sozinho, sem a presença de verbo principal:

Yes, he *will*.

Tradicionalmente, um verbo auxiliar é definido como sendo um verbo utilizado para formar "*tense*", modo, aspecto, voz, etc. de outro verbo. Chomsky³ divide a categoria verbo em duas sub-categorias, *Aux* e *V*; sendo *V* referente aos verbos principais e *Aux* aos modais e demais auxiliares como (*Tns*), (*be ing*) e (*have en*), que simbolizam respectivamente "*tense*" forma progressiva e perfeito.

Em *Aspects of the Theory of Syntax*, o autor estabelece uma regra que simboliza e localiza a ocorrência dos auxiliares modais na frase inglesa:

Aux. → (Modal) (perfect) (Progressive)

Para tal Chomsky baseou-se nas características sintáticas dos modais:

a) Os modais têm somente formas finitas, pois terminam em morfema *Past* ou *Pres*, não terminando em *ing* ou *en* ou ainda em nenhuma das duas.

b) como somente o primeiro verbo no grupo verbal pode ser

³ CHOMSKY, N. Aspects of the Theory of Syntax. 1a. ed., Cambridge, The Mit Press, 1975. p. 43.

finito, isto quer dizer que o modal *sō* pode ocupar o primeiro lugar no grupo ou locução verbal.

c) Quanto a restrições numéricas, sabe-se que *sō* pode haver um modal no grupo verbal, o que não ocorre com os verbos catenativos:

* Hanna *will may* come tomorrow.

Paul seems to be unhappy.

A primeira oração é considerada agramatical.

d) Outra característica sintática importante dos auxiliares modais é que eles não apresentam concordância com o sujeito, como pode ser visto em:

He has gone X They have gone.

He *can/will* swim X They *can/will* swim.

Das características vistas cremos ser a segunda a mais importante, pois ela se constitui não só numa característica dos auxiliares modais em si, mas também estabelece uma diferença entre os modais e os demais auxiliares do grupo verbal inglês. Quer seja em orações declarativas, interrogativas ou negativas, os modais serão sempre os primeiros verbos de qualquer locução verbal.

<u>VAux</u>	+	<u>Have</u>	+	<u>Been</u>	+	<u>Being</u>	+	<u>V.P.</u>
1		2		3		4		5

que equivale à fórmula proposta por Chomsky¹:

Aux. + Tns + (M) + (perfect) + (Progressive)

Observe-se a posição do auxiliar modal nas locuções verbais abaixo:

¹ Ibid., p. 43.

S = Will come

1

Will have graduated

1 2 5

Will have been elected

1 2 3 5

Will be being photographed

1 3 4 5

S = Will John come?

1 5

Will John have graduated in 1987?

1 2 5

Will John have been elected?

1 2 3 5

Will John be being photographed?

1 3 4 5

S = John will not come

1 5

John will not have graduated in 1987.

1 2 5

John will not have been elected.

1 2 3 5

John will not be being photographed.

1 3 4 5

Como foi visto, portanto, sintaticamente o auxiliar modal ocupa sempre o primeiro lugar na locução verbal inglesa em qualquer tipo de frase.

2.2.4. VARIAÇÃO E EVOLUÇÃO DOS MODAIS

Apesar desta dissertação ser um estudo sincrônico, alguma informação a respeito da perspectiva diacrônica é necessária para a clarificação da variação dos usos dos modais. Portanto, o estudo dos modais nesta dissertação se fará em duas etapas. Na primeira estudar-se-á os usos modais a partir do século VIII, quando do seu aparecimento, estudo que será feito de modo diacrônico.

Este estudo nos revela usos modais de *Will* e *Shall* que continuam sendo usados apesar de terem sofrido alguma interrupção:

Will: - nº 6 - usado em relação ao desejo ou exigência, disposição ou desejo de consentir (de outrem).

nº 16 - usado em vez de *Shall* para expressar referência futura.

nº 42 - usado na "apodosis" de um período condicional com a noção hipotética enfraquecida, expressando certa incerteza ou hesitação.

Shall: - nº 9 - no uso idiomático de futuro para indicar o que

ocorre em condições específicas.

nº 14 - usado em orações indiretas ou outras expressões relacionadas ao tempo passado onde, se o tempo fosse presente, seria usado *Will*.

nº 19 - usado em "apodosis" de uma declaração hipotética (expressa ou sugerida), indicando que a suposição e sua consequência não são reais.

Este estudo nos revela também o desaparecimento de alguns usos de *Will* e *Shall* como:

Will: nº 17 - significando "Past tense" com função temporal.

nº 18 - em orações subjetivas, sugerindo "intended" ou "determined".

nº 45 - expressando mera condição ou suposição em orações hipotéticas.

Shall: - nº 1 - expressando dever (dinheiro) ou lealdade.

nº 12 - expressando obrigação ou necessidade anterior = *was bound to, had to*.

nº 13 - usado em declarações do que foi anteriormente planejado ou estabelecido = *was to, was about to*.

A segunda etapa do estudo dos auxiliares modais *Will* e *Shall* nesta dissertação é sincrônica, iniciando-se a partir de 1900. Nesta etapa procurar-se-á apresentar os principais usos modais de *Will* e *Shall* em uso corrente, conforme autores como Jespersen, Leech e Palmer, constando ainda de listas de usos característicos de três áreas científicas e de Inglês em Geral que serão elaboradas a partir de leitura de textos específicos das áreas citadas acima.

WILL / ANOS / USOS	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
14 - Como auxiliar para expressar referência futura, também em pedidos polidos (futuro)		X				X	X	X	X	X	X	
15 - Como auxiliar de futuro expressando acontecimento acidental, ou resultado a ser esperado (sob condições) ou expressando conseqüência necessária sem noção de futuro, ou com noção de futuro perdida ou obscurecida (condicional)	X				X	X	X	X	X	X	X	
16 - Usado em vez de SHALL como auxiliar para expressar referência futura	X						X	X	X	X	X	X
17 - Com objeto = desejado, algumas vezes sugerindo o sentido de "Inteded" (no negativo "refused")	X	X			X	X	X	X	X			
18 - Com oração objetiva ou = desejado muitas vezes sugerindo "intended", "determined", "ordained" fig. (demandéd that something should be done)	X			X	X	X	X	X				
19 - Expressando <u>manter</u> , <u>compreender</u> , <u>querer</u>	X	X		X	X	X	X	X	X	X	X	
20 - Ou expressando "wished to" com muitas vezes implicação de "intended to"	X	X		X	X	X	X	X	X	X	X	
21 - Expressando was (were) "willing to", "consented to", "chose to", ou em orações dependentes após expressão de pedido ou afins, com verbo principal no passado	X				X	X	X	X	X	X	X	
22 - Equivalente a was (were) accustomed to; used to	X	X		X	X	X	X	X	X	X	X	X
23 - Equivalente a "was capable of _____ ing; could						X	X		X			

WILL	ANOS											
	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
24 - Equivalente a "was determined to"; "insisted on"; "or persisted in _____ ing".										X	X	
25 - Em frases indiretas de passado - Na primeira pessoa sugere intenção		X	X			X		X	X	X	X	X
26 - No negativo, denota recusa					X	X	X	X	X	X	X	X
27 - Forma o auxiliar do futuro anterior (com o Inf. Presente), ou futuro - no passado	X			X	X		X	X	X	X	X	X
28 - Usado no lugar de SHOULD (onde SHOULD é atualmente usado) como auxiliar										X	X	X
29 - (...) Como qualificação, equivalente do WILL (presente): could or might, desire, should like, etc.	Past Tense WOULD com função modal											
							X	X	X		X	
30 - Com construção similar ao 2					X	X	X	X	X	X	X	
31 - Usado optativamente na frase: Would God (God would), como expressão de desejo (raro)						X	X	X				
32 - Figurativo como qualificação do uso 3							X					
33 - Transformação como equivalente do uso 4								X				
34 - O subjuntivo passado usado com força condicional como suavização do presente do Indicativo no uso 5: could or should; wish to; should like to; wish, desire or want to	X				X	X	X	X	X	X	X	X
35 - Na "apodosis" de um período condicional (If I were you) = I advise or recommend you to = I SHOULD ... ou com noção de Intenção e Volição					X	X	X	X	X		X	
36 - Na "apodosis" de um período condicional com a noção hipotética enfraquecida, expressando certa incerteza de hesitação	X			X	X	X	X	X	X	X	X	X
37 - Em pergunta ou sentença indireta ou de SHOULD seria usado (na sentença direta)						X		X		X	X	

WILL	ANOS											
	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
USOS												
38 - Em oração condicional ou equivalente com implicação de <u>intenção</u> ou <u>volição</u> , expressando desejo	x		x		x	x	x	x	x	x	x	
39 - Em oração hipotética expressando mera condição ou suposição						x	x	x		x		
40 - Numa oração substantiva expressando o objeto do desejo, conselho ou pedido									x	x	x	x

SHALL ANOS USOS	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900
Verbo Transitivo													
1 - Dever dinheiro ou lealdade				X		X	X	X	X	X			
2 - Em declarações em geral, equivalendo a OUGHT	X	X			X		X	X	X				
3 - Expressão de "necessidade" - MUST ou estabelecendo uma condição necessária = WILL HAVE TO		X	X			X	X	X	X	X		X	
4 - Indicação do que está decidido ou estabelecido = O Modal "IS TO"			X		X	X			X	X			
5 - Em ordens ou instruções		X	X		X	X	X	X	X	X	X		
6 - Expressão da determinação do falante em fazer ocorrer ou prevenir a ocorrência de algum fato no futuro			X		X	X	X	X	X	X	X	X	
7 - Em usos interrogativos relacionados a 5 e 6		X	X			X	X	X	X	X	X	X	
8 - Como auxiliar, formando o futuro com o Infinitivo Presente e o "Future Perfect" com o Infinitivo Perfeito		X	X		X	X	X	X	X	X	X	X	
9 - No uso idiomático do futuro para indicar o que ocorre com condições específicas dadas (Auxiliar)			X		X			X	X	X	X	X	X
10 - Indica contingência futura em orações hipotéticas relativas e temporais					X	X	X	X	X	X	X	X	
11 - Indica o resultado planejado de alguma ação, ou o objeto de um desejo, intenção, ordem, pedido em orações					X	X	X	X	X	X	X	X	
12 - Expressa obrigação ou necessidade anterior = <u>WAS BOUND TO</u> ; <u>HAD TO</u>		X				X	X						
13 - Em declarações do que foi anteriormente planejado ou estabelecido = WAS TO; WAS ABOUT TO				X		X	X	X	X	X			
14 - Usado em orações indiretas ou outras expressões relacionadas ao tempo passado onde se o tempo fosse PRESENTE, seria usado SHALL		X	X	X	X	X	X	X	X	X	X	X	X
15 - Para sugerir que o falante não se compromete com a verdade do fato		X	X		X			X	X	X	X	X	

2.3. ESTUDOS SOBRE WILL E SHALL

2.3.1. OTTO JESPERSEN

A partir do final do século XIX aparece na Inglaterra uma corrente gramatical formada por estudiosos da língua que se preocuparam em explicar completa e sistematicamente como funcionam as principais estruturas da língua inglesa. Dentre os autores pertencentes a este grupo conhecido como "tradicionais" estudar-se-á o trabalho relativo aos modais *WILL* e *SHALL*, elaborado por Otto Jespersen. Jespersen fazia parte da corrente tradicional adepta das idéias prescritivistas, porém, entrando em conflito com os conservadores, afastou-se, buscando seu próprio caminho. Os prescritivistas não davam a devida importância à descrição da língua como ela era realmente usada, não considerando também as formas literárias contemporâneas. Ocupando-se da escrita formal, preocupavam-se muito com a gramática que extraíam dos clássicos da literatura inglesa, que por sua vez, sozinhos, não eram por assim dizer, "retrato" da língua usada na época. Jespersen, porém, como gramático histórico, preocupava-se mais com o uso do inglês extraído de autores não só clássicos, mas também daqueles considerados bons autores. Neste aspecto, pode-se dizer que Jespersen revelou-se um autor descritivista. A teoria descritivista diz que a gramática deve se basear na língua realmente usada.

Jespersen escreveu uma gramática publicada pela primeira vez em 1933, porém importante até os nossos dias para o estudo da língua inglesa, denominada "*Essentials of English Grammar*". Nesta obra Jespersen não foi somente descritivo, mas também

evidenciou uma preocupação em impor um padrão lingüístico, pois utilizava-se não só de obras de autores famosos, mas também de exemplos usados por pessoas consideradas educadas, sendo, pois, prescritivo, mas baseando-se também no padrão oral da época, além do escrito.

Quanto à questão dos modais *WILL* e *SHALL*, o autor¹ considera-os como verbos auxiliares, e no que diz respeito à questão do tempo verbal diz que os mesmos têm formas correspondentes, tanto no presente como no passado:

Presente *Will*, fraco 'll, negativo *Won't*

Passado *Would*, fraco 'd, negativo *Wouldn't*

Presente *Shall*, fraco 'll, negativo *Shan't*

Passado *Should*, fraco 'd, negativo *Shouldn't*

Jespersen também fornece listas de usos dos modais, as quais, porém, não são completas nem tampouco primam pela generalização. Jespersen², indicando os usos dos diversos auxiliares modais, torna claro que os verbos que ele chama de auxiliares, podem expressar necessidade, possibilidade e impossibilidade de um lado e, comando (ordem), permissão e proibição de outro. Agindo assim, Jespersen não se afasta muito dos autores que trataram dos auxiliares modais dentro da "*Lógica*", como por exemplo Lyons, Von Wright, etc. Somente Jespersen não se aprofundou no estudo do que é chamado por autores como os citados acima, "*modalidade*", porém, reconhecia algumas das noções

¹ JESPERSEN, O. Essentials of English Grammar. London, George Allen & Unwin Ltd., 1974. p. 271.

² Ibid., p. 273.

formadoras da Modalidade dos verbos em Inglês.

A análise destes dois modais, segundo Jespersen, será apresentada na ordem *WILL*, *WOULD*, *SHALL* e *SHOULD*, pois é nesta ordem que eles são apresentados pela maioria dos autores que tratam do assunto "*modais*".

1. WILL

Os usos do auxiliar modal Will, de acordo com Jespersen¹, são dez, incluindo-se o do futuro, que será visto aqui em primeiro lugar.

1.1. FUTURO PURO

Jespersen admite que há casos em que *WILL* perdeu seu sentido de "*volição*", passando, por conseguinte, a expressar somente o futuro. Isto ocorre quando são usadas as segundas e terceiras pessoas:

Look out or you *will* be run over.

I am afraid you *will* have to submit.

You (he, she) *will* come of age next year.

É muito frequente com terceira pessoa que *WILL* só expresse o futuro e não *volição*:

Will the moon rise soon?

Will he be able to go to Switzerland this summer, do you think?

What *will* happen if you refuse?

¹ Ibid., p. 273.

Jespersen acrescenta aqui que a impaciência pode ser demonstrada acentuando-se *will*:

When *will* the strike be over?

Segundo o autor, apesar do significado de *WILL* ser fraco, o mesmo pode ser acentuado para que se demonstre certeza de um fato futuro:

Death may come any day, but it *will* come some day.

Porém, parece não haver sentido volicional neste exemplo, pois a morte não depende aqui da nossa volição. A explicação que o autor dá ao enfraquecimento de *Will* "*volition*", é que isto resulta do acentuado uso de *Shall* para expressar futuro. Porém Wekker¹ diz que tanto *Will* como *Shall* expressando futuro podem ser ditos volicionais ou não, e que há muita ambigüidade entre as duas ocorrências. Mas, sabemos que *Shall* é muito mais volicional do que *Will*, pois se liga à pessoa que fala.

1.2. VOLIÇÃO

Com relação ao tempo presente, *Will* é usado segundo Jespersen², juntamente com o verbo *to have* ou *sō*, em períodos negativos para denotar volição.

Who *will* have some lemonade?

I *won't* stand any nonsense.

I *will* not be intimidated or talked back to.

O sentido de volição naturalmente não tem referência ao que ocorrerá no futuro, pois o auxiliar *Will* foi muito usado

¹ WEKKER, op. cit., p. 4.

² JESPERSEN, op. cit., p. 272.

primeiro para expressar tal sentido, bem como o "coloured future", e finalmente o futuro simples.

PROMESSA, AMEAÇA OU CERTEZA

Ainda com o pronome de primeira pessoa, *Will* expressa promessa, ameaça ou certeza, além de volição, portanto ele indica certeza e muitas vezes sugere promessa ou ameaça, que nas demais pessoas é expressado por *Shall*:

I'll tell you some other day.

I'll take care that it Shall be all right.

I *Will* call him to account. He *Shall* pay dearly for this affront.

1.3. VOLIÇÃO NO FUTURO

Quando *Will* é usado em cláusulas condicionais ele expressa volição no futuro, pois, para expressar simplesmente o futuro, é suficiente usar-se o tempo presente:

If you *Will* say so, you *Shall* have a kiss. (SH)

I *Shan't* be happy unless he'll come.

1.4. SUPOSIÇÃO

Will expressa suposição, fazendo-o também com o auxílio do infinitivo perfeito, o que se pode verificar nos exemplos

* "Volition Coloured Future" ocorre quando o sujeito estando na primeira pessoa (I, We) está determinado a fazer o que o verbo expressa: I WILL make you a cup of coffee.

seguintes:

This, I think *Will* be the key.

He is waiting for us downstairs; he *Will* be wondering where we are.

You *Will* have heard the rumour. (I suppose you have heard).

She *Won't* have seen you come.

1.5. HÁBITO

O hábito ou atitude habitual é expresso freqüentemente por *Will*, pois Jespersen diz:

"What one does willingly, one is apt to do frequently..."¹

Verificamos este uso em:

He *Will* sit for hours without saying a single word.

Many *Will* swoon when they do look on blood. (SH)

Accidents *Will* occur in the best regulated families.

1.6. PODER, CAPACIDADE

Quando usado com objetos ou sujeitos inanimados *Will* expressa poder ou capacidade, podendo este uso também ser aplicado a coisas inanimadas e a seres vivos:

Murder *Will* out.

Seeing that death, a necessary end, *Will* come when it *Will* come. (SH).

¹ Ibid., p. 272.

The hall *will* sit five hundred.

That *will* do.

1.7. FUTURO COM INFINITIVO PASSADO

Quando acompanhado de Infinitivo perfeito, *will* expressa "before future":

He'll have forgotten by the end of the term.

1.8. VOLIÇÃO PRÓPRIA

Will é usado com I e we (*Will* I, *Will* we) quando se deseja perguntar a outra pessoa sobre nossa própria volição ou vontade:

"*Will* you come with me?" "*Will* I?" (How can you doubt it? Of course I *will*).

Will I open my heart to that scoundrel? Of course not.

We won't quarrel the first day Harry is here, *will* we? ("I hope you won't quarrel with me").

1.9. EXIGÊNCIA OU ORDEM

You *will* raramente é usado como uma declaração real sobre a vontade da pessoa com que se fala durante o ato de fala, mas ele freqüentemente expressa exigência ou ordem:

You *will* pack at once and leave this house.

Por outro lado usa-se *will* para indagar do ouvinte sua volição, especialmente em convites:

Will you let me have a look at that letter?

Will you come for a walk this afternoon?

Will you pass the mustard, please?

Will you é também muito freqüente depois de um imperativo:

Stop that noise, *Will* you?

2. WOULD

Jespersen¹ cita oito usos para o pretérito de *Will*:

2.1. VOLIÇÃO NO PASSADO

Raramente se usa *Would* como passado ou pretérito para expressar volição, sendo mais usado em períodos negativos:

He knocked at the door but she *Would* not let him in., sendo também usado em orações que expressam indiferença e em combinações com *Have*:

Doors were shut upon him, go where he *Would*.

As luck *Would* have it he did not turn up.

She *Would* have her will in every way.

2.2. HÁBITO (NO PASSADO)

Would muitas vezes sugere hábito no passado e quando expressa poder ou capacidade é passado real:

He *Would* sit for hours without saying a word.

She *Would* hang on him, as if increase of appetite had growne

By what it fed on (SH).

¹ Ibid., p. 282.

The hall *would* sit 1000 people.

He tried vegetarianism, but that *wouldn't* do for him.

2.3. IMAGINATIVO

Sendo o uso principal de *would* imaginativo, indica volição sob condições hipotéticas:

I *wouldn't* be Lady Mickleham's butler if you made me a duke.

2.4. EXPRESSÃO FRACA DE DESEJO

Sem condição expressa, *would* com primeira pessoa do singular (I) transforma-se numa expressão fraca de desejo, sendo na linguagem moderna usado para expressar o mesmo significado, *I should*:

I *would* detain you here some month or two. (SH)

And I *would* be the girdle about her dainty dainty waist (Tennyson).

2.5. PEDIDOS

would com segunda ou terceira pessoa (You, he, she, it) revela que a idéia de volição é geralmente eliminada. No entanto, se faz presente em pedidos *would* you? e em orações condicionais:

would you (kindly) tell me the way to Charing Cross?

If you *would* sit thus by me every night, I should work better. (Browning).

If you (one, we) *would* understand a nation, you (one, we) must know its language.

He neither *would* have told it if the could, not could he if he *would*.

No último exemplo o significado volição está mais forte no segundo *would* que no primeiro.

2.6. VOTOS

Would é usado também para expressar votos, não somente quando a sua realização depende da vontade do falante:

I wish he *would* stop that noise.

If only the bad weather *would* change to better.

2.7. PROBABILIDADE

Would pode indicar probabilidade ou o que alguém pode esperar quando o caráter hipotético for obscurecido:

That *would* be in the year 1878.

That's what most men *would* say.

They were very polite. They *would* be.

I don't see that at all. No, you *wouldn't*.

2.8. IMAGINATIVO SEM VOLIÇÃO

O *would* imaginativo quando não apresenta traço de volição funciona como auxiliar em orações principais que expressam condição contrária ao fato.

You (any one) *would* die if you (any one) took a strong dose of strychnine.

It *would* be a pity if he did not see her alive.

Suppose he came back, what *would* happen?

3. SHALL

Jespersen¹ expõe o fato de que *shall* é usado com infinitivo, o qual na maioria das vezes é depreendido do contexto e que seu significado original de obrigação, compulsão, necessidade ou coação física ou moral já perdeu sua força, apesar de ainda existir em algumas combinações. Por este motivo, considera-o um mero instrumento da gramática (verbo auxiliar), sem significado próprio. Jespersen também generaliza o termo "*obligation*", que no seu entender significa vários tipos de coação.

Serão vistos agora os diversos usos ou significados de *shall* citados por Jespersen², examinando-se, do mesmo modo como foi feito com o uso futuro de *will*, os usos futuros de *shall* antes dos demais:

3.1. FUTURO

shall significando futuro não demonstra, para Jespersen, obrigação e sim necessidade fatal ou vontade divina como determinante de futuro:

Nation *shall* rise against nation,
and kingdome against kingdome, and
then *shall* be famine and pestilence (A.V.)

Conforme o autor é preferível usar-se (I, We) + *will* para

¹ Ibid., p. 275.

² Ibid., p. 275.

expressar volição, pois (I, We) + *shall* é usado como auxiliar de futuro. Ocorrendo a necessidade fatal quando alguém fala a respeito de seu próprio futuro:

I shall come of age next year.

We shall be forgotten before the end of the century.

Usa-se *I shall* quando se menciona os sentimentos futuros de alguém, pois os falantes em geral não gostam de sugerir que os mesmos dependam de sua vontade:

I shall feel sorry when he dies.

I shall always remember your kindness.

Quando o falante sente que o acontecimento futuro depende de fatores estranhos à sua vontade, usa *shall* para expressar o futuro:

Perhaps *I shall* go abroad next summer.

I am afraid *I shall* be arrested.

I hope *I shall* go abroad next summer.

3.2. OBRIGAÇÃO

shall pode expressar obrigação fatal ou necessidade não dependente da vontade humana, sendo em tal caso considerado semelhante a *Must*. Geralmente é precedido por expressões tais como 'is sure to', 'is certain to':

Death is certain to all, all shall dye. (SH)

Who win his Love shall lose her,

Who loses her shall gain. (Andrew Lang)

Existe certa expressão de tempo futuro quando a obrigação depende da vontade humana; enquanto nos exemplos anteriores não existe definição do tempo;

I am determined she shall have no cause to complain.

The very first condition of legal justice is that it shall be no respecter of persons.

Thou shall love thy neighbour as thy selfe. (AV)

Com relação ao último exemplo usa-se agora o equivalente a *Must* em proibições:

You *must* not kill.

Quando o falante quer deixar claro seu domínio sobre o ouvinte (no sentido de proibí-lo de executar a ação a que se propõe), usa a negativa abreviada:

Positively, you *shan't* escape.

3.3. OBRIGAÇÃO (POR PARTE DO FALANTE)

Shall com pronomes de segunda ou terceiras pessoas pode significar obrigação por parte do falante, isto é, uma promessa ou ameaça:

You *shall* have the money as soon as I can get it.

It *shall* be done now, Mr. Clark.

Not one halfpenny *shall* you ever have of mine.

3.4. INDAGAÇÃO

Em perguntas com o sujeito na terceira pessoa, shall significa indagação a respeito da vontade do ouvinte:

What *shall* it be?

When *shall* the wedding be?

3.5. CONSELHO OU VONTADE DO OUVINTE

Shall (I, We) expressa por sua vez pergunta a respeito da vontade do ouvinte, ou quando se deseja seu conselho:

Now, *shall* I take your hand?

Shall I help you to some cheese?

What *shall* I do? Which way *shall* I turn?

4. SHOULD

Jespersen¹ considera *SHOULD* como pretérito de *SHALL* e capaz de expressar os seguintes significados:

4.1. OBRIGAÇÃO REAL

Should aqui, e nos demais significados, é pretérito de imaginação para expressar obrigação ou dever sob condições hipotéticas:

If I could work with my will every diot should be boiled with his own pudding. (Dickens)

Quando não existe condição expressa, o que acontece geralmente, *Should* indica obrigação presente, dever ou propriedade em geral:

A friend *should* beare his friends infirmities. (SH)

Maids *should* be seen and not heard. (Swift)

The sound *should* be an echo to the sense. (Pope)

This is really splendid, though I say it that *should* not.

Quando uma sentença se refere ao tempo presente ou a todos os

¹ Ibid., p.285.

tempos, ela não sofre alteração para expressar passado:

He is everything he *shouldn't* be.

Porém, se houver necessidade de enfatizar a idéia de dever não cumprido no passado, usa-se Infinitivo Perfeito:

He was everything he *shouldn't* have been.

4.2. SHOULD NO PRESENTE

Should ocorre freqüentemente com verbos no presente após expressões de determinação, desejo, comando, etc.:

It is necessary that the servants should know nothing about this.

He is particularly anxious that his children should have good table-manners.

All expect that you should rowse yourself. (SH)

4.3. CONSELHO

O sentido "*obrigação*" é muitas vezes enfraquecido passando a significar conselho ou repreensão leve:

You *should* see her dance; it is well worth seeing.

What *should* I do? equivalendo a: What do you advise me to do?

Com relação a ações que não foram executadas usa-se também o Infinitivo Perfeito:

You *should* have seen him dance; that would have made you laugh.

Quando há sugestão de quase-certeza usa-se também *should*:

I *should* know that voice.

4.4. AUSÊNCIA DE COAÇÃO

Os traços de coação desaparecem nas orações principais onde a distribuição de *should* ou *would* corresponde a das expressões de futuro:

If he said that, I *should* (*would*) believe him.

If he had said that; I *should* have believed him.

Porém, *would* está sendo usado mais frequentemente que *should*.

4.5. CONDICIONAIS

"*If he called, if he should call*" e "*if he were to call*" são expressões quase sinônimas de incerteza com relação ao futuro, e são diferentes de "*if he would call*", a qual sugere vontade:

Papa will recover; and if he *should*, I *will* let you know.

How terrible it *would* be if a time *should* come when I could not love you.

Suppose some of the boys had seen me and *should* find me out.

A condição pode também estar expressa na oração relativa:

What *would* be thought of a painter who *should* mix August and January in one picture?

He *would* be a rash man who *should* venture to forecast the remote results of the war.

4.6. SHOULD EMOCIONAL

Should é usado para expressar surpresa agradável ou não,

juízo, alegria ou indignação a respeito de algo que possa ou não ser real. Se compararmos "Why was the date omitted?" e "Why should the date of this document be omitted?" veremos que a primeira é uma simples pergunta com relação ao fato, enquanto a segunda implica em dúvida com relação aos motivos que levam à execução da ação expressa pelo verbo ou admiração do falante:

Where the devil *should* he learn our language? (SH)

Why *should* they try to influence him?

Someone asking for you. - Who *should* ask for me?

Este uso pode também vir expresso em orações:

It is not good that the man *should* be alone. (AV)

It is quite natural that the Russians *should* hate their oppressors.

Why she *should* have done so, I can hardly tell.

4.7. SHOULD TAMBÉM É USADO APÓS EXPRESSÕES DE MEDO

Let us leave the house this instant, for fear he *should* ask further questions.

I tremble lest some mischance *should* befall him.

Speaking in a low voice, lest anyone *should* hear.

Pode-se notar a importância para este trabalho da inclusão da análise efetuada por Jespersen quanto aos auxiliares modais, se for levado em consideração a importância que teve para o estudo da língua inglesa o seu afastamento da linha dos chamados "*tradicionais*". Não só Jespersen procurou estudar a língua como ela era usada, o que se verifica pelos exemplos incluídos em suas obras, como também foi um dos primeiros a se preo-

cupar com a possível imposição de padrão lingüístico baseado no uso da língua escrita.

Apesar de classificar os auxiliares modais segundo a linha tradicional da gramática, e é bem verdade que dificilmente algum autor consegue romper definitivamente com a linha de pensamento à qual estava ligado, consegue sobrepujar as linhas tradicionais. Aproxima-se dos lingüistas e filósofos que viriam a seguir, pois apesar de estudar pouco o problema da modalidade, reconhece que o auxiliar modal *SHALL* pode expressar necessidade, possibilidade, permissão e proibição. As duas primeiras noções *necessidade* e *possibilidade*, são importantes na Lógica modal, que tenta explicar a modalidade e os modais na língua inglesa e nas demais línguas.

Embora Jespersen não tenha se adiantado no estudo da modalidade, seus exemplos muitas vezes apresentam traços de modalidade muito acentuados.

2.3.2. GEOFFREY N. LEECH

Leech é professor e diretor do arquivo de textos modernos em inglês da Universidade de Lancaster. Estudou Lingüística nos Estados Unidos de 1964 a 1965. Foi professor de Inglês na Universidade de Londres e secretário do Centro de Pesquisa de Comunicação. É autor de "*English in Advertising: A Linguistic Study of Advertising in Great Britain*" (1966), "*A Linguistic Guide to English Poetry*" (1969), "*A Communicative Grammar of Contemporary English*" (juntamente com Jan Svartvik) (1975), "*Meaning and the English Verb*" (1977) e outros.

Leech é um gramático que pode ser considerado tradicional, porém, quanto aos modais, descreve-os sincronicamente e se utiliza de uma abordagem com finalidade mais comunicativa que estrutural. Relaciona as estruturas gramaticais sistematicamente aos significados, usos e situações às quais se aplicam. Leech não enfatiza o modal na estrutura lingüística, pois visa com seu estudo aprofundar-se na função comunicativa da língua. Ainda quanto aos auxiliares modais, mais especificamente *WILL*, que é, segundo Leech¹, facilmente ambíguo no que se refere ao uso *expressão de probabilidade* e ao uso futuro *predição*, o autor diz que a distinção dos dois usos deve ser feita mediante a escolha de advérbios de futuro. Portanto, o uso ao qual for possível acrescentar-se um advérbio de futuro sem alteração de seu significado, será considerado de *predição futura*:

He *will* have arrived by now.

¹ LEECH, G. Meaning and the English Verb. 6a. ed. London, Longman Group Ltd, 1977. p. 80.

He *will* have arrived tomorrow.

Conforme Leech¹, a principal dificuldade relativa aos auxiliares modais e seus usos reside no fato de que seus significados são formados pela conjugação de um elemento lógico e de um pragmático. Leech² diz também ser possível falar-se sobre estes elementos utilizando-se termos lógicos, tais como "*permissão*" e "*necessidade*", mas que é importante não esquecer que estes termos são por sua vez modificados por pressões psicológicas, as quais influem na comunicação entre os seres humanos. Também fatores tais como *superioridade*, *polidez*, *tato* e *ironia*, influenciam os modais e seus significados. A condescendência, por exemplo, pode transformar o sentido de permissão inerente ao modal *WILL* em uma ordem:

You *MAY* go.

Quanto aos auxiliares modais *WILL* e *SHALL*, o autor estuda-os em separado. O autor considera *WILL* e *SHALL* juntamente com *MAY*, *CAN*, etc., formas de "*Present Tense*" e *WOULD* e *SHOULD*, juntamente com *MIGHT*, *COULD*, etc., como formas de "*Past Tense*", embora reconheça que o título de "*Present Tense*" não é muito adequado, pois estas formas se referem também ao futuro, devendo ser chamados de "*non-past*".

Leech³ considera em separado o uso de *WILL* e *SHALL* como auxiliares de futuro, separando-o dos demais usos que chama de usos modais. Incluiremos, portanto, um breve estudo dos auxiliares modais *WILL* e *SHALL* como auxiliares de futuro, segundo o autor em estudo, antes de passarmos ao estudo dos seus usos

¹ Ibid., p. 66.

² Ibid., p. 67.

³ Ibid., p. 52.

ou significados modais.

Os auxiliares *will* e *shall* podem ser usados na forma contrata 'll na linguagem oral e escrita, a qual pode ser combinada com as três pessoas para indicar futuro. *Shall*, entretanto, pode expressar predição neutra somente com primeira pessoa:

One day I shall die. One day we shall die.

Com segunda ou terceira pessoa *shall* tem significado modal. *Will* tanto como 'll pode expressar futuro com as três pessoas:

One day I will die.

One day you will die.

One day he will die.

Will e *shall* como auxiliares de futuro são usados, porém, em muitos contextos significando predição:

Tomorrow's weather *will* be cold and cloudy.

You *will* feel better after this medicine.

Perhaps I'll change my mind after I've spoken to my wife.

Will e *shall* são também comuns na oração principal de períodos condicionais:

If you put this lever, the roof will slide back.

Will e *shall*, quando seguidos pelo infinitivo perfeito, expressam passado no futuro, isto é, um fato é visto no passado de um ponto no futuro:

By next Wednesday, I'll have moved into the new house.

1. WILL

Os usos ou significados modais de *WILL* sugeridos por

Leech¹ são quatro: "*Willingness*", que chamaremos de Determinação, Insistência, Intenção e Expressão de Probabilidade.

Quanto aos três primeiros, Leech acrescenta-lhes a característica *volição* com certa graduação:

Determinação ou volição fraca.

Insistência ou volição forte.

Intenção ou volição intermediária.

Passemos portanto ao exame dos usos modais de *WILL*:

1.1. DETERMINAÇÃO OU VOLIÇÃO FRACA

Determinação é comum em pedidos, sendo também considerado substituto de formas imperativas, porém expressas mais educadamente. Não é acentuado, podendo ser usado na sua forma abreviada 'll:

Who *WILL* give me a book?

I *WILL* (Who is willing...?)

My cauffeur *WILL* help you. He'll do anything for money.

1.2. INSISTÊNCIA OU VOLIÇÃO FORTE

Este significado do auxiliar modal *WILL* não é muito comum. Isto se deve à emoção que esta idéia de insistência sugere. Também o tom de exasperação que se nota com relação à obstinação de alguém é muito acentuado quando *WILL* é usado com pronomes de segunda e terceira pessoas (you), (He, She, They) ocupando a posição de sujeito. Por outro lado, quando *WILL* é

¹ Ibid., p. 77.

usado com pronome de primeira pessoa (I, We) exercendo a função de sujeito, o falante faz sentir sua determinação, e o efeito que produz é de expressar algo categoricamente. Ao contrário do uso anterior, *WILL* significando insistência é sempre acentuado, não podendo, portanto, ser reduzido à forma 'll, como se pode verificar em:

He *WILL* go swimming in dangerous waters. (He insists on going swimming...)

I *WILL* go to the dance, and no one shall stop me.

1.3. INTENÇÃO OU VOLIÇÃO INTERMEDIÁRIA

Este uso se situa em um ponto intermediário entre "*volição humilde ou submissa*", que é como o autor¹ em exame explica o termo "*willingness*" (determinação) e "*volição agressiva*" ou "*determinada*" que ele diz existir em *insistência*. Examinemos então as duas orações abaixo:

I *WILL* write tomorrow.

We'll celebrate this very night., que equivaleria a Let's celebrate this very night.

No primeiro exemplo verifica-se que o falante realmente manifesta sua intenção de executar a tarefa a que se propõe, ou seja, de escrever uma carta no dia seguinte, enquanto que no segundo, o falante manifesta o desejo, mas não a intenção de celebrar algum acontecimento naquela mesma noite, o que é expresso através de um convite (let's ...). Este terceiro uso modal de *WILL*, ocorrendo como ocorre, com sujeito de primeira

¹ Ibid., p. 78.

pessoa (I, We), pode comunicar ainda uma promessa ou ameaça (We'll hit you if you don't stop crying), ou mesmo uma decisão solidária ou grupal. Pode-se perceber que no próprio ato de fala foi tomada uma decisão e a execução da ação verbal será garantida. Isto leva o leitor a compreender que neste terceiro uso modal ocorre uma superposição dos usos que sugerem *predição* e *volição*, isto é, depreende-se deste uso um certo sentido de *predição* e *volição* ocorrendo simultaneamente. Como consequência disto, este uso poderia ser considerado não-epistêmico. *WILL* ocorrendo com significado de insistência é sempre acentuado, não podendo, portanto, ser abreviado, pois a forma 'll pode ser usada somente em um sentido *volicional*, aquele que implica em "willingness". Os três usos modais de *WILL* que sugerem *volição*, têm seus usos limitados a sujeitos animados, pois, quando são usados com sujeitos inanimados, sugerem sempre que o falante no ato da fala transfere-lhes características de pessoa:

My car *WILL* keep braking down.

1.4. EXPRESSÃO DE PROBABILIDADE

Este quarto uso modal de *WILL* pode ser chamado de *predição* e está relacionado mais com a implicação de futuro de *WILL* e *SHALL*, do que com os significados que incluem *volição*. Existe também uma certa possibilidade de confusão entre *predição futura* e *expressão de probabilidade* que existe em:

- a. By now they *WILL* be dancing in the hall.
- b. That *WILL* be the teacher of Mathematics.
- c. The airplane *WILL* have landed by now.

Na frase "a", o falante faz uma *predição* do que está ocorrendo

no presente com relação a um fato ou situação cuja realização ele certamente não está observando no momento da fala. Na frase "b", o falante ao ouvir a porta se abrir prediz a identidade da pessoa que vai entrar e, por conseguinte, ainda não pode ser vista pelo mesmo. Pode-se verificar então, que este uso modal de *WILL* difere muito pouco do uso de *WILL* como predição futura. Para possibilitar a diferenciação entre a expressão de probabilidade e *predição futura*, Leech sugere que se faça uso do teste de colocação de advérbio de futuro, que já foi explicado na página 48.

Teríamos então:

He *WILL* have arrived by now. (expressão de probabilidade)

He *WILL* have arrived tomorrow. (predição)

Leech¹ afirma ainda que *WILL*, equivalendo à expressão de probabilidade, é muito semelhante ao significado de *MUST* quando implica em necessidade lógica. Para se verificar a veracidade desta afirmação basta que se substitua *WILL* por *MUST* nas frases "a", "b" e "c", para que se constate a existência de uma variação muito pequena no significado das mesmas, ora com *WILL*, ora com *MUST*:

By now they *WILL* be dancing in the hall.

By now they *MUST* be dancing in the hall.

That *WILL* be teacher of Mathematics.

That *MUST* be teacher of Mathematics.

The airplane *WILL* have landed by now.

¹ Ibid., p. 79.

The airplane *MUST* have landed by now.

O sentido de predição de WILL pode ser também encontrado em declarações científicas ou mesmo quase-científicas (declarações que se referem a fatos relacionados com a ciência, mas que podem ou não ocorrer ou mesmo ser refutados):

If the patient develops a temperature of 39°C the nurse *WILL* give him double doses of the prescribed medicine.

If the disease causes serious impairment of the function of the heart, the usual symptoms of cardiac failure *WILL* be superimposed on the acute rheumatic process.

Estas frases, especificando o condicional, referem-se sempre a uma série de fatos, e são por outro lado, equivalentes a sentenças científicas ou quase-científicas formadas com o verbo no "*simple present*" e que se referem a uso habitual como:

Whenever ammonia is added, the colour changes to orange, ou com condicional:

If you add ammonia to a substance it *WILL* turn to orange. Nota-se através destas sentenças que sempre que condições são dadas, algo sucede, sendo, portanto, o significado de "If the patient develops a temperature of 39°C the nurse *WILL* give him double doses of the prescribed medicine", e "If the disease causes serious impairment of the function of the heart, the usual symptoms of cardiac failure *WILL* be superimposed on the acute rheumatic process", equivalentes a *uso habitual*.

Também em provérbios, declarações científicas ou frases diversas este sentido de *expressão de probabilidade* chega a possuir e expressar força de *comportamento característico*:

A lion *WILL* attack a man only when hungry.

Oil *WILL* float when mixed with water.

Observa-se facilmente que *comportamento característico* é um uso próprio da linguagem científica na seguinte frase:

All thermocouple materials *WILL* deteriorate when exposed at the higher temperatures of their useful range or other atmospheres, and to contact with other materials.

Este uso também é muito freqüente em descrições:

She *WILL* go reading all day if you don't stop her.

He'll go all day without eating.

On competition days the students *WILL* be in the county-hall by seven o'clock, and they *WILL* stay there till the last result is given.

Significando *expressão de probabilidade* *WILL* não é acentuado, podendo ser usado abreviadamente 'll, o que pode conduzir a certa ambigüidade, pois poderá expressar *expressão de probabilidade* ou *volição*.

Esta mesma ambigüidade pode ocorrer em provérbios como "Boys *WILL* be boys", onde é possível interpretar-se o uso de *WILL* como sendo *expressão de probabilidade* ou *volição*. Com *WILL* não acentuado, o significado será: "É predizível ou característica de meninos se comportarem como meninos". Se porém, *WILL* for acentuado, o significado será de *volição forte*, isto é, "Meninos insistem em se comportar como meninos". Note-se porém, que a dúvida somente surgirá na linguagem escrita, pois esta não ser em casos raros, não demonstra *stress*. Resta ainda lembrar que para se diferenciar *WILL* *expressão de probabilidade* de *WILL* *predição* que contém referência futura, é sempre possível segundo o autor utilizar-se do teste de colocação de advérbios que já foi explicado anteriormente à página 48.

a. He *WILL* have arrived by now. (expressão de probabilidade)

b. He *WILL* have arrived tomorrow. (predição) referência futura.

Donde se conclui que em "a" o falante está predizendo um fato no presente, enquanto que em "b" a *predição futura* é indicada pelo advérbio de futuro "*tomorrow*".

Comparemos também o uso de *WILL* em declarações científicas em geral às mesmas declarações no tempo presente:

a. Oil *WILL* float on water.

b. Oil floats on water.

Em "b" o verbo "*floats*" tem sentido de ação habitual, porém em frases como:

c. Apple-trees blossom in Spring, ou

d. The school-bus arrives at 7.50 daily, não há sentido de *expressão de probabilidade* que possa ser considerado equivalente a ação habitual.

Leech¹ explica este fato dizendo que as ações recorrentes nas frases "c" e "d" são certas e pré-determinadas e que falar de *expressão de probabilidade* neste caso seria levantar dúvidas supérfluas. Ainda segundo o autor, existe outro tipo de sentença na qual o fator "*disposition*" é indicado pela presença do modal *WILL* como se pode constatar em:

This watch won't work, (a qual equivale a "I can't make this watch work.")

O relógio no caso estaria disposto a não funcionar. Mas na realidade temos aqui um simples relato sobre estados e não

¹ Ibid., p. 80.

personificações. Por exemplo: "The door wait open." O exemplo citado por Leech¹ "The auditorium WILL seat 500" equivaleria a (one can seat 500 people in the auditorium.), que mostra a semelhança entre este uso modal de *WILL* e a *possibilidade* expressa por *CAN*. Entretanto o exemplo entre parênteses pode ser considerado como sendo um tipo de *probabilidade*, no qual o leitor subentende a existência de uma oração condicional. "The auditorium *WILL* seat 500 (if necessary).

2. WOULD

Leech² considera *WOULD* não como um modal à parte, mas sim como a forma de *WILL* usada para expressar o passado. Primeiramente faz um breve estudo de *WOULD* usado em relação à voz direta citando exemplos de cada uso ou significado em separado:

2.1. EQUIVALENTE DE WILL, PORÉM NO PASSADO

He *WOULD* risk anything for gain or adventure.

2.2. INSISTÊNCIA

Equivalente à *volição forte* no passado:

The annoying thing was that he *WOULD* leave the house in a muddle.

¹ Ibid., p. 80.

² Ibid., p. 90.

2.3. EXPRESSÃO DE PROBABILIDADE

Quanto a *WOULD* significando *expressão de probabilidade*, Leech¹ diz que este significado é mais freqüente que o seu equivalente com *WILL*, ocorrendo nas descrições de personagens ou de comportamento característico:

In his last years, the King *WOULD* spend whole days in morose solitude, speaking only to his immediate family and refusing all official audiences. At such times he *WOULD* behave with the utmost churlishness to his ministers, and *WOULD* fly into a violent rage whenever his will was crossed.

No que diz respeito às regras de "*stress*", o autor diz que as que se aplicam a *WILL* também podem ser aplicadas a *WOULD*.

Quando usado no sentido *volição forte* *WOULD* deve ser acentuado, pois não o é quando ocorre em outro sentido. Podendo portanto ser reduzido a 'd quando significar *volição forte*.

Quanto à voz indireta (*reported speech*) e o uso de *WOULD*, Leech² diz que ele é sempre usado quando uma forma de *WILL* for usada na voz indireta, ocorrendo assim "*backshifted WOULD*", como se pode verificar em:

The plan *WILL* fail. I warned them that the plan *WOULD* fail. (onde o uso de *WILL* no futuro é substituído por seu equivalente, porém no passado, *WOULD*).

Muitas vezes em orações principais *WOULD* pode (na voz indireta) ter seu significado equivalente a *WILL* no futuro e não

¹ Ibid., p. 91.

² Ibid., p. 102.

nos outros usos, como condicional, volição, etc., pois estes não seriam adequados ao contexto:

That evening he *WOULD* be seeing Sylvia again.

3. SHALL

Leech¹ apresenta três usos do modal *SHALL*, sendo que os dois primeiros além de não serem muito freqüentes, equivalem aos dois usos de *WILL* explicados na seção anterior, ou seja "*Weak Volition*" e "*Strong Volition*". Porém a diferença entre estes usos está na vontade do falante que é manifestada usando-se *SHALL* e não na vontade do sujeito da frase que é manifestada ao se fazer uso de *WILL* (quando o sujeito estiver na segunda e terceira pessoa), enquanto que se o sujeito estiver na primeira pessoa (I, We), isto implica na superioridade do falante sobre o ouvinte, e *SHALL* corresponderá a *Intermediate Volition* de *WILL*.

Passemos agora ao exame dos três usos principais de *SHALL*:

3.1. DETERMINAÇÃO (VOLUÇÃO FRACA) DA PARTE DO FALANTE

SHALL com este significado não é muito comum, sendo evitado principalmente pelos falantes mais jovens por transportar uma certa conotação desagradável de condescendência (promessa), existindo daí a implicação de que o falante está prestando um favor ao proferir a frase. Por outro lado, este uso de *SHALL* é

¹ Ibid., p. 80.

comum ao se falar com crianças e animais de estimação. Isto é facilmente verificado em:

42 - He *SHALL* be rewarded if he is patient. (promessa)

43 - Good dog, you *SHALL* have a bone when we get home. (I'm willing for you to to have a bone...) Também é uma promessa ou convite.

44 - You *SHALL* stay with us a long as you like.

3.2. INSISTÊNCIA (VOLICÃO FORTE)

Assim como o anterior, este uso de *SHALL* também manifesta *Volition* por parte do falante, e da mesma forma, segundo Leech (p. 81), não é considerado um uso muito democrático, ao sugerir que a vontade do ouvinte é dominada pela do falante. Também é de uso restrito e apresenta sinais de impetuosidade, sendo por isto atualmente considerado obsoleto. Em seu lugar são usados mais freqüentemente *MUST* e *CAN* (imperativo democrático). É muito usado na linguagem das bruxas, gigantes, madrastas e anões das histórias infantis:

45 - "... The king's daughter in her rosebud youth *SHALL* prick her hand with a spindle, and fall down dead!"¹

3.3. INTENÇÃO

Da mesma forma que *WILL*, *SHALL* também apresenta um sentido intermediário volicional de intenção, o qual, porém, confor-

¹ WEBBE, E. Sleeping Beauty. U. S. A., Rand McNally & Company, 1962. p. 20.

me Leech¹, não se sobrepõe ou não se confunde com os dois sentidos volicionais examinados até agora. Isto pode ser compreendido facilmente se tivermos em mente que este terceiro significado modal de *SHALL* ocorre somente com o sujeito na primeira pessoa do singular ou plural (I, We):

I *SHALL* write tomorrow.

We *SHALL* celebrate this very night.

We *SHALL* stop your pocket money if you don't behave.

4. SHOULD

Leech² não se refere a *SHOULD* como um modal à parte, mas sim como "past tense" de *SHALL*, e cita os seguintes usos de *SHOULD*:

4.1. PASSADO DE SHALL

Como passado de *SHALL*, *SHOULD* é usado na voz indireta e em orações hipotéticas:

You *SHALL* have an ice-cream when we get home.

They promised that he *SHOULD* have an ice-cream when he got home.

4.2. COAÇÃO

Juntamente com *OUGHT TO*, *(HAD) BETTER*, *SHOULD* expressa

¹ LEECH, op. cit., p. 91.

² Ibid., p. 91.

coação:

You *SHOULD* do your homework before going to the theater.

4.3. SUBSTITUTO DE OUGHT TO

SHOULD usado desta maneira pode, segundo Leech¹, expressar dois significados:

1. OBRIGAÇÃO POR PARTE DO FALANTE

He ought to pay for the broken window.

He *SHOULD* pay for the broken window.

2. NECESSIDADE LÓGICA

Our guests ought to be home by now.

Our guests *SHOULD* be home by now.

Demonstrando o primeiro par em (a) obrigação mas não muito acentuada, e em (b) obrigação acentuada, enquanto o segundo par demonstra em (a) uma espécie de predição e em (b) obrigação.

No que se refere a stress, enquanto *OUGHT* é normalmente acentuado, *SHOULD* pode ou não o ser. Como este uso não tem contrapartida em *SHALL*, é considerado um uso específico de passado.

¹ Ibid., pp. 94-95.

4.4. SHOULD + HAVE = OUGHT TO HAVE

SHOULD HAVE pode substituir *OUGHT TO HAVE* quando houver conotação de *OBRIGAÇÃO NÃO CUMPRIDA*:

He *SHOULD HAVE* paid for the broken glasses ... but he didn't.

Leech¹ acentua o fato de que com *SHOULD* ou mesmo *OUGHT TO* há um certo envolvimento do falante como sendo aquele que exerce sua vontade e até mesmo sua autoridade.

¹ Ibid., p. 95.

2.3.3. F. R. PALMER (1974)

Palmer é um lingüista inglês que estudou na Universidade de Londres e foi discípulo de Firth. Seu posicionamento, pesquisas e publicações o levaram a ser considerado como a maior autoridade no problema do verbo na língua inglesa no mundo todo.

Palmer¹ além de dividir os auxiliares em primários e secundários, sendo estes últimos os chamados auxiliares modais (WILL, SHALL, CAN, MAY, MUST, OUGHT, DARE e NEED), classifica-os também como "*discourse oriented*" / "*subject oriented*", e "*epistemic*" / "*non-epistemic*".

Iniciando o estudo dos auxiliares modais WILL e SHALL pela sua função de auxiliares de futuro, Palmer² diz que seria mais fácil e simples demonstrar ser este um dos diversos usos dos dois modais, mas que há certas razões que o diferenciam dos demais, justificando, até certo ponto, o tratamento que lhes é dado pelos gramáticos tradicionais, que os consideram meros auxiliares de futuro. Também ao explicar seu método de análise, Palmer³ deixa claro que para distinguir o uso de referência futura dos demais usos basta acrescentar advérbios de futuro a esta referência.

1. Usado para expressar o futuro, SHALL ocorre com os pronomes pessoais de primeira pessoa (I, We), é devido a esta ocorrência que as gramáticas mostram o paradigma de futuro como

¹ PALMER, op. cit., p. 100.

² Ibid., p. 105.

³ Ibid., p. 103.

sendo:

I <i>SHALL</i>	We <i>SHALL</i>
You <i>WILL</i>	You <i>WILL</i>
He, She, It <i>WILL</i>	They <i>WILL</i>

Como nas demais pessoas usa-se *WILL*, nota-se haver uma relação muito próxima entre *WILL* e *SHALL*, a qual é demonstrada claramente quando se utiliza "*reported speech*", pois a escolha entre ambos se faz tendo em vista o pronome que os acompanha, e não a frase propriamente dita; são, portanto, considerados como formas supletivas*:

I shall see him tomorrow.
 He says he will see him tomorrow, e
 You will see him tomorrow.
 He says I shall see him tomorrow.

Como é possível verificar pelos exemplos acima, *I shall* é substituído por *He will* e *You will* por *I shall*, ou ainda se o verbo estiver no passado por *He would* ou *I should*. Mas note-se que *Will* ou a forma reduzida 'll é usada mais freqüentemente não só com os pronomes (he, you, they) como estabelece o paradigma, mas também com (I e We):

I will be seeing her this afternoon.
 We'll be seeing her this afternoon.

Também conforme Palmer¹, é importante notar que *WILL* e

* Formas supletivas são as que substituem as formas inexistentes de alguns modais para determinados usos, como por exemplo: Be able substitue ou supre o modal CAN em:

He put a lot of effort in and could lift the weight.
 He put a lot of effort and was able to lift the weight.

¹ Ibid., p. 105.

SHALL ocorrem com (I e We), e não somente com o segundo. Seria, portanto, errado afirmar-se que *Shall* é a forma de primeira pessoa (I), pois não ocorre com, por exemplo, "*Paul and I*", ou ainda "*you and I*", apesar destas combinações serem consideradas de primeira pessoa pelos gramáticos tradicionais. Tais combinações nos dariam a formação de frases mal formadas:

John and I shall be there.

Dever-se-ia utilizar a forma reduzida *'ll* ou *will*.

2. A passivação é o segundo fator abordado por Palmer que diferencia este uso (expressão de futuro) dos demais usos modais, pois enquanto ela é possível e normal com o período simples, formado sem o uso de auxiliares, ou somente com aqueles não-modais, (que marcam "*tense*", "*aspect*" e "*phase*"), o mesmo não ocorre com o *WILL* modal, quando indicador de volição.

I shall meet Mary at the station.

Mary will be met by me at the station.

3. O terceiro fator que diferencia a expressão de futuro dos demais usos é o fato de ambos não ocorrerem em cláusulas condicionais como é possível verificar em:

I shall be ill tomorrow.

If I'M ill tomorrow.

He'll be ill tomorrow.

If he's ill tomorrow.

Em frases no condicional ocorre troca dos auxiliares pelos verbos no Simple Present, e Will pode ocorrer em cláusulas condicionais, mas com sentido de *volição*, e não como simples expressão de futuro:

It'll rain tomorrow = futuro

If it rains tomorrow = condicional

If only it'll rain tomorrow = volição

Diz Palmer¹ que em cláusulas condicionais ocorre a substituição de *will* de futuro (modal) pelo verbo não-modal no presente.

4, O quarto aspecto abordado por Palmer² na diferenciação do uso de *WILL* e *SHALL* como expressão de futuro dos demais usos modais é a capacidade que *WILL* demonstra para indicar "*displaced time marking*"* da mesma maneira que o tempo passado (past tense).

The animal you saw *was* my dog.

The man you'll be talking to *will* be the Mayor.

As sentenças são normais mesmo se o animal ainda for de seu dono e o homem ainda for prefeito.

Porém não é possível a afirmação do mesmo fato nas sentenças que se seguem:

The man you used to talk to *used to be* the Mayor.

The man you've been talking to *has been* the Mayor.

The man you're going to be talking to *is going to be* the Mayor.

Has been e *going* são indicadores de tempo, podendo portanto considerar-se *WILL* como também o sendo.

¹ Ibid., p. 107.

² Ibid., p. 107.

* Usa-se *WILL* em vez de um verbo no passado. *WILL* aqui está sendo usado para indicar que o homem já era prefeito quando ocorreu o ato de fala.

5. Palmer¹ considera que há certa restrição com relação ao uso de *WILL* e *SHALL* para referência ao passado, porém usamos *WOULD* e *SHOULD* em "*reported speech*" para referirmo-nos ao passado:

He said he would be better soon.

Sob diversos aspectos *WILL* e *SHALL* expressando passado diferem dos outros modais, mas não de todos os outros usos de *WILL*, especialmente de *volição*. Quanto a isto Palmer² diz não haver formas "*tentative*" *would* ou *should* com expressão de futuro:

Would you pass me the salt tomorrow?

Would you pass me the salt?

O autor diz também que devemos isto ao fato de nunca existir dupla negativa pois não existe diferença semântica entre:

He won't come tomorrow.

e

He'll not come tomorrow.

Estas duas frases diferem estilística e formalmente em termos do que é negado, mas diz o autor que elas não diferem semanticamente, porque não há diferença entre a negação do futuro de um ato e o futuro da negação do mesmo ato.

São estas as razões pelas quais Palmer considera *WILL* e *SHALL* expressando futuro mais próximos do sistema central do verbo do que *WILL* e *SHALL* em seus outros usos e mesmo os outros modais.

Porém, ainda não os considera totalmente auxiliares e diz

¹ Ibid., p. 107.

² Ibid., p. 108.

não ser vantajoso separá-los dos outros usos modais e estabelecer paradigmas de futuro.

1. WILL

Passemos agora ao exame dos quatro significados modais de *WILL* citados por Palmer¹.

1.1. VOLIÇÃO

Da mesma forma que *will*, *WILL* *volição* refere-se a futuro diz Palmer², quando admite a colocação de advérbios de futuro. Porém, note-se que, quando existe *volição*, *WILL* é considerado "*Subject Oriented*", isto é, relacionado semanticamente a alguma espécie de atividade, qualidade ou *status* do sujeito da sentença, ao passo que *will* expressando futuro desempenha função de verbo auxiliar primário na formação do que parece ser um período simples e não composto. Porém *WILL* *volição* funciona mais como verbo catenativo (não-epistêmico) em período composto.

Ao contrário do que ocorria com *will* expressando futuro, com *WILL* *volição* percebe-se que não há associação entre *SHALL* e *WILL*, não havendo, em consequência disto, trocas. Também não ocorre apassivação, pois Palmer³ diz que não há relação de voz entre:

John *won't* meet Mary.

Mary *won't* be met by John.

¹ Ibid., p. 108.

² Ibid., p. 108.

³ Ibid., p. 108.

Ainda ao contrário de *WILL* futuro, *will* *volição* ocorre em cláusulas condicionais e a ambigüidade existente na frase "*He'll come tomorrow*" desaparece ao se usar o presente e ao se transformar a frase em oração condicional:

If he comes tomorrow. If he'll come...

WILL *volição* pode no passado expressar tentativa, não havendo portanto, diferença significativa entre:

I'll do that for you.

I'd do that for you.

WILL you pass the salt?

WOULD you pass the salt?

WOULD também é usado para expressar tempo passado, exceto quando houver referência a uma simples ação com a qual se concordou e que foi subseqüentemente executada no passado:

I asked him to come but he *wouldn't*.

Quanto aos sujeitos inanimados, Palmer¹ considera o exemplo "*This shirt won't iron*", ou "*This shirt wouldn't iron*" como estranhas ou mal formadas, pois com sujeitos inanimados não pode segundo o autor haver *volição*. Porém Palmer diz que:

*"Perhaps we need a wider term than volition to include the qualities of inanimate things that permit them to act or undergo actions"*².

Esta afirmação se baseia no fato de que o verbo "*refuse*" pode ser usado com sujeitos inanimados:

The books refuse to fit there.

The car refuses to start.

¹ Ibid., p. 110.

² Ibid., p. 110.

Ora, se sujeitos inanimados podem se recusar a algo, podem também manifestar "*will*", diz Palmer¹.

1.2. INSISTÊNCIA

Este segundo uso do modal *WILL insistência*, talvez pudesse, de acordo com o autor, formar juntamente com *volição* um só uso. A ação neste caso é deliberada e desejada, residindo a diferença de significado talvez na existência ou não de "*stress*", tornando assim seu reconhecimento difícil em textos escritos, pois *Insistência* é sempre acentuado em frases orais:

He *WILL* act the fool.

If you *WILL* do these things.

Este uso de *WILL* não apresenta nem admite referência futura. Ainda no que se refere à relação de *WILL* com *SHALL*, apassivação e a ocorrência de *WILL* com *IF*, *insistência* é compatível com o primeiro. Residindo a diferença, porém, no fato que *WOULD insistência* pode se referir a uma única ação no passado, enquanto o mesmo não se verifica com *WOULD volição*.

I asked him to stop but he would do it. (Insistência)

Quanto ao aspecto semântico, salienta o autor² que as negativas negam o verbo principal e não o auxiliar modal:

He *WOULDN'T* stop fooling about.

A indicação neste caso é de que o sujeito insiste em não parar.

¹ Ibid., p. 111.

² Ibid., p. 111.

1.3. CARACTERÍSTICA

WILL característica assemelha-se a *WILL* *volição*, sendo sua indicação a mesma fornecida por Leech¹ para o quarto uso de *WILL* o qual se refere a atividades características:

She'll stay there singing for hours.

He *WILL* play cards with his friends all day long.

Diz Palmer que este uso poderia ser considerado semanticamente próximo a "*habitual willed activity*", porém há, prova Palmer², diferenças que tornam possível considerá-lo como sendo um uso à parte:

a) Não indicando futuro, o teste de colocação de advérbios não pode ser efetuado.

b) A forma de passado *WOULD* é usada para referência de tempo passado na forma não-negativa:

She sits there for hours doing nothing.

Porém ela não pode ocorrer no sentido *tentativa*.

c) Com pouca ou nenhuma mudança de significado *WILL* pode ser substituído pela forma não-modal, conforme é possível verificar em:

She *WILL* sit there for hours doing nothing.

She sits there for hours doing nothing.

O autor³, porém, acentua que o inverso não pode ser efetuado pois acarretaria mudança de significado:

I go to work every day.

I'll go to work every day.

¹ LEECH, op. cit. p. 79.

² PALMER, op. cit., p. 111.

³ Ibid., p. 112.

Enquanto este uso parece não se referir somente a atividade característica, parece ter a ver também com desaprovação ou condescendência.

1.4. INFERÊNCIA

Este uso é subdividido em duas ocorrências, e diz Palmer¹ que as mesmas não se referem a acontecimentos no futuro, mas que poderiam ocorrer se as condições ideais fossem providenciadas:

1. Na primeira, *WILL* é usado para verdades que independem do fator tempo e que podem ser aprovadas por indução. Este uso não é igual ao citado por Leech².

Oil *will* float on water.

Pigs *will* eat anything.

Palmer³ diz que as verdades expressas por estas duas frases além de ocorrerem sempre, a qualquer tempo, podem ter sua veracidade comprovada através de experiências. Aqui é possível usar-se a forma não-modal em vez da modal:

Oil floats on water.

Pigs eat anything.

Porém, ainda segundo o autor, certas verdades gerais não podem ser expressas utilizando-se *WILL* com este significado:

The sun rises in the east.

The Severn flows into the Atlantic.

¹ Ibid., p. 112.

² LEECH, op. cit., p. 79.

³ PALMER, op. cit., p. 112.

2. O uso de *WILL* para conclusões dedutivas não difere muito daquele citado por Leech¹ - Expressão de Probabilidade, como é possível verificar no exemplo abaixo, nem difere muito de *WILL* inferência:

Bill is John's father and John is Tom's father, so Bill *WILL* be Tom's grandfather.

Aqui também é possível usar-se a forma não-modal, sem que ocorra mudança exagerada de sentido:

Bill is John's father and John is Tom's father, so Bill is Tom's grandfather.

Entretanto, segundo o autor², é possível utilizar-se, em vez desta construção, uma outra com o modal *MUST*, onde teríamos então:

... so Bill must be Tom's grandfather.

No entanto, poderia ser dito que este é o *MUST* epistêmico (mas não o *WILL* epistêmico no exemplo com este modal) desde que ambos apresentam diferenças de significado.

2. WOULD

Palmer³ não considera *WOULD* como um modal à parte, mas sim como a forma morfológica de passado de *WILL*, apesar de dizer que a função tempo difere um pouco dos modais para os não-modais, pois a principal função de passado com modais seria expressar o sentido tentativa, a qual é mais rara com os não-modais.

¹ LEECH, op. cit., p. 79.

² PALMER, op. cit., p. 113.

³ Ibid., p. 95.

Will you help me?

WOULD you help me?

Serão examinados a seguir os principais significados de WOULD segundo Palmer:

2.1. TENTATIVA

WOULD é muito usado quando se deseja tornar um pedido mais educado possível, podendo ser usado em três tipos de sentenças:

1. Pedidos onde WOULD expressa *volição* no passado:

WOULD you open the door?

2. Oferta por parte do falante igualmente expressando *volição* no passado:

I WOULD do that for you.

3. Ainda a tentativa com WOULD + have para se fazer referência ao passado:

If I had remembered I WOULD have made you know about it.

2.2. FUTURO NO PASSADO

Há, diz Palmer¹, certas restrições com relação ao uso de WOULD para expressar *futuro no passado*, exceto quando se tratar de linguagem literária, pois na linguagem coloquial seria mais

¹ Ibid., p. 107.

comum usar-se "*was going to*":

I *WOULD* see them again the next day.

Neste período temos a ocorrência de dois "*tense*", sendo respectivamente futuro e passado, pois na realidade existiria o futuro como uma verdade em um certo período de tempo no passado.

I will see them again the next day.

2.3. PASSADO

Segundo Palmer¹, *WOULD* é usado para expressar passado onde não houver referência a alguma ação com a qual se concordou e que já tenha se realizado no passado:

I asked him to come but he wouldn't.

Por outro lado não podemos dizer: I asked him to stop and he *WOULD*.

Porém, Palmer² diz que a forma de "*past tense*" dos modais *WOULD* e *MIGHT* (e o negativo *COULDN'T*) são encontrados somente com o sentido de "*tentative*" quando usados epistemicamente - nunca para tempo passado:

He *WOULD* be there.

2.4. VOLIÇÃO NO PASSADO

Diz Palmer³ que, quando ocorre *WOULDN'T* (não *WOULD*) para expressar passado, há traços de volição:

¹ Ibid., p. 138.

² Ibid., p. 138.

³ Ibid., p. 111.

The books *WOULDN'T* fit here.

A ocorrência deste tipo de sentença pode parecer estranha semanticamente, pois com sujeitos inanimados não pode haver *volição*, mas como já foi citado anteriormente, Palmer diz que:

*"If inanimate things can refuse; it is plausible to argue that they can also will!"*¹

2.5. INSISTÊNCIA

Would pode também expressar *insistência*, residindo a diferença entre este uso e *volição* no fato de que o passado *WOULD* pode se referir a uma única ação no passado, enquanto o mesmo não pode ocorrer com *WOULD* expressando *volição*:

She *WOULD* act the fool.

Note-se que *WOULD* com este significado, tanto como *WILL*, é sempre acentuado.

2.6. CARACTERÍSTICA

Pode haver também no passado referência a atividades características através de *WOULD*:

She *WOULD* stay there singing for hours.

Ocorre, contudo, que a mesma forma não pode ser usada no negativo.

Ainda com relação a este uso da forma *WOULD*, convém dizer que ela não ocorre no sentido "tentative".

¹ Ibid., p. 111.

2.7. INFERÊNCIA COM SENTIDO DE "TENTATIVE"

A forma *Would* tanto expressa inferência no passado quanto no presente:

Bill was John's father and John was Tom's father, so Bill *WOULD* be Tom's grandfather.

3. SHALL

Além de juntamente com *WILL* expressar o futuro, afirma Palmer¹ que *SHALL* pode também apresentar um significado chamado por Jespersen² de *obrigação*. Esta seria a primeira ocorrência de um modal orientado para o discurso, que, segundo Palmer³, é aquele que se relaciona mais com a participação do falante em declarações do que com a participação do sujeito da sentença propriamente dito.

Quando expressa o futuro *shall* da mesma forma que *will*, admite a colocação com advérbios de futuro:

Shall I come tomorrow?

You shall have it next week.

He *SHALL* be rewarded for this.

Enquanto na pergunta o falante quer saber se o ouvinte deseja ou espera que ele venha, na segunda frase o falante é quem inicia a ação.

Há certa dose de ambigüidade entre os dois sentidos de *SHALL* em *SHALL I come tomorrow?*, ambigüidade que poderia ser

¹ Ibid., p. 113.

² JESPERSEN, op. cit., p. 275.

³ PALMER, op. cit., p. 100.

suprimida se a ação expressa pudesse ser assumida. Por outro lado, se a pergunta envolvesse sô o sentido de futuro, a forma usada poderia ser:

Am I coming tomorrow?

Diz também Palmer¹ que *SHALL* poderia ter dois significados diversos; um para períodos declarativos e outro para interrogativos, mas sabe-se que isto é característico dos modais "*discourse oriented*". Quando tal ocorre em declarações, é o próprio falante quem indica a sua participação, prometendo ou garantindo o fato, enquanto que, em períodos interrogativos, o falante indaga a respeito do ouvinte se ele promete ou garante a ação proferida.

4. SHOULD

Esclarece Palmer² que com os modais que não são orientados para o sujeito (*SHOULD, MIGHT*) não existe referência ao tempo passado, pois é muito difícil garantir-se fatos já ocorridos. Da mesma maneira não é possível usar-se a forma *SHOULD* no sentido de tentativa, mas diz Palmer³ que *SHOULD* é regularmente usado com sentidos que não se relacionam com as formas básicas de *SHALL*:

4.1. SHOULD = OUGHT

You *SHOULD* do something about that.

¹ Ibid., p. 113.

² Ibid., p. 124.

³ Ibid., p. 128.

He *SHOULD* ask my permission first. .

Frequentemente em tag-questions encontra-se a forma *SHOULD* acompanhada de *OUGHT TO*:

He *OUGHT TO* be here, *SHOULDN'T* he?

Mesmo havendo noção de obrigação entre os dois verbos, este uso não é igual semanticamente àquele que expressa tentativa. Quanto à expressão de passado, esta é indicada tanto para *SHOULD*, como para *OUGHT* pelo auxiliar não-modal *HAVE*:

You *SHOULD* have done something about that.

É importante notar também que do mesmo modo que *SHALL* not e *SHAN'T*, *SHOULD* not e *SHOULDN'T* negam não o modal em si, mas o verbo principal da frase.

4.2. INDICAÇÃO DE TEMPO

Neste uso a forma *SHOULD* indica tempo presente e passado, podendo também sem mudança acentuada de significado ser substituída por um auxiliar não-modal:

It is very odd that he *SHOULD* do that.

It is very odd that he did/does that.

It is lucky that the weather *SHOULD* be so fine.

It is lucky that the weather is/was so fine.

Existe nestas sentenças uma certa expressão de emoção e *SHOULD* ocorre na oração subordinada.

4.3. APÓS VERBOS "REQUIRE" E "DEMAND"

Após verbos que indicam "require" e "demand" *SHOULD*

ocorre com sentido de obrigação:

I require that they *SHOULD* pay the bill.

I demand that it *SHOULD* be brought back.

4.4. CONDICIONAL

A forma *SHOULD* pode ainda, segundo Palmer¹, ocorrer em orações condicionais e em orações com a partícula "*IF*":

If he comes he *SHOULD* tell me.

If I *SHOULD* see him, I'll tell you.

If you *SHOULD* see him, let me know.

Esta forma ainda pode ocorrer sem a partícula "*IF*" e com inversão para formar o condicional:

SHOULD I see him, I'll tell you.

SHOULD you see him, let me know.

Note-se que o uso de *SHOULD* como condicional denota redução de probabilidade.

¹ Ibid., p. 146.

2.3.4. F. R. PALMER (1979)

Em seu livro "*Modality and the English Modals*"¹ Palmer diz que em todo estudo sobre modalidade existem dificuldades relacionadas com a gramática universal e a relação entre forma e significado. Deve tal estudo abranger, portanto, ambos os aspectos, pois não se sabe ainda como definir modalidade em termos puramente semânticos, nem é possível trabalhar-se somente com aspectos formais, pois se assim fosse feito, procurar-se-iam somente os padrões formais de uma única língua. Tal fato não seria conveniente, pois existem ainda dificuldades quanto à identificação de tais padrões de uma língua para outra. Como conseqüência deve-se tomar por base para um estudo sobre modalidade, ambos os fatores, isto é, os formais e os semânticos, sendo mais básicos os primeiros.

Nesta obra Palmer diverge da divisão de modalidade deixada implícita em sua obra anterior "*The English Verb*" (1974:100-103). Nesta obra o autor dividia a modalidade em a) Epistêmica b) Não Epistêmica c) Subject Oriented e d) Discourse Oriented.

Agora Palmer² divide a modalidade em a) Epistêmica b) De-

¹ PALMER, Modality and the English Modals, p. 1.

² Ibid., p. 36.

ôntica e c) Dinâmica.

"Possibilidade" e "Necessidade" são as duas noções básicas da lógica nas quais o autor diz que a modalidade se fundamenta, e são também graus de modalidade.

2.3.4.1. MODALIDADE EPISTÊMICA

A modalidade epistêmica é mais a modalidade das proposições que das ações, estados ou eventos, pois a função dos modais epistêmicos é estabelecer julgamentos sobre a possibilidade, necessidade, etc., de alguma coisa ser ou não o caso. Os dois graus básicos de modalidade, possibilidade e necessidade são representados respectivamente pelos modais *MAY* e *MUST*:

He may be qualified to be recognized as a teacher of French or of German or of something like that. (S.1.2a-7)

This must be one the finest views of the whole professional route. (S.10.5-40)

Quanto às paráfrases destes dois modais, Palmer¹ diz que *MAY* pode ser parafraseado por "*It is possible that ...*", e *MUST* por "*The only possible conclusion is that ...*".

Para expressar o grau seguinte de modalidade, probabilidade, o modal indicado é *WILL*:

Tell him Professor Cressage is involved he will know Professor Cressage. (S.7.21.8)

Os outros graus de modalidade são expressos pelas formas "tentative" *MIGHT*, *WOULD* e *SHOULD*. Também na modalidade epistêmica o autor inclui formas como *Be Bound To* e *Have (Got) to*,

¹ Ibid., p. 1.

pois o primeiro tem na maioria de suas ocorrências sentido epistêmico e o segundo expressa necessidade:

It's bound to come out though, I think ... It's received such rave notices that somebody's bound to put it on. (S.2.7.18)

If you've seen all the old Frankensteins you've got to know all the jokes. (S.2.10.94)

Quanto a *SHOULD*, Palmer¹ diz que este modal não expressa necessidade, e sim razoável suposição ou conclusão, e que nem sempre é fácil fazer-se uma distinção quanto a este modal se epistêmico ou deôntico. Por outro lado, Palmer² diz que também é difícil estabelecer-se distinção entre *SHOULD* e *OUGHT TO*. Estes dois modais são mutuamente substituíveis em tag-questions:

He *OUGHT TO* come tomorrow, *SHOULDN'T HE?*

Ainda quanto a *SHOULD* sabe-se que o mesmo pode ocorrer em orações subordinadas, assim como *SHALL*:

It is also proposed that an economic commission should be appointed. (Scheurweghs 1959:376)

SHOULD também é considerado como forma tentativa de *SHALL* quando se refere a um desejo, proposta ou recomendação.

Quanto às formas gramaticais para presente irreal e condicionais no passado, *Would*, *Should*, *Would have* e *Should have* são somente formas morfológicas de *WILL* e *SHALL*, não estando relacionadas a nenhum dos usos do presente de *WILL*, pois não é a modalidade que é irreal e sim o fato.

* Obs. Foi respeitado o original quanto aos exemplos.

¹ Ibid., p. 49.

² Ibid., p. 100.

2.3.4.2. MODALIDADE DEÔNTICA

A modalidade deôntica é basicamente performativa, isto é, o falante ao enunciar um modal deôntico pode realmente dar permissão (*MAY* e *CAN*), prometer ou ameaçar (*SHALL*) e impor obrigação (*MUST*).

Aqui também se apresentam dois graus de modalidade: Possibilidade que é expresso pelos modais *MAY* e *CAN* e Necessidade expresso por *MUST*. O terceiro grau de modalidade é expresso por *SHALL*. Com este modal o falante garante que o fato acontecerá. *SHALL* é mais forte que *MUST*, pois não impõe somente uma obrigação, mas garante que a ação ocorrerá:

You *SHALL* have it tomorrow.

He *SHALL* be there by six.

SHALL também é a forma usada em ordens e regulamentos:

The 1947 act *SHALL* have effect as if this section were included in Part III thereof. (W.I4.I.54)

Com *SHALL* (I, We) são usados para expressar futuro, o que dificulta a distinção do futuro simples de uma promessa ou garantia.

O que caracteriza a modalidade deôntica é o fato de que os modais deônticos não possuem formas de "*past tense*" para tempo passado, pois não se pode no ato de fala prometer, dar permissão, etc., no passado ou em relação a fatos já ocorridos no passado. Porém, uma forma de "*past tense*" pode ocorrer em "*reported speech*". Também não existe expressão de futuro com modais deônticos, porém é possível esclarecer que será dada permissão, garantias serão feitas, etc., usando-se um verbo principal: *I Shall* permit you ... *I shall* require you ...

Como o acontecimento é sempre futuro, pode-se somente dar permissão ou garantir coisas que venham a ocorrer após o ato de fala. Tal fato demonstra que existe uma relação entre a expressão de futuro e a modalidade.

Palmer¹ diz que *SHOULD* e *OUGHT TO* poderiam ser incluídos na modalidade deôntica se o envolvimento do sujeito fosse mais característico desta modalidade que o fator performativo; inclui, portanto, os dois modais na categoria seguinte.

Ainda na modalidade deôntica o autor inclui a forma *HAD BETTER*, através da qual o falante aconselha o ouvinte sobre o melhor modo de agir, com implicação de que conseqüências desagradáveis acontecerão se o seu conselho não for seguido a risca:

You'd better ask him when he comes in. (S.I.'.4I)

2.3.4.3. MODALIDADE DINÂMICA

Também aqui se fazem presentes as duas noções da Lógica, Possibilidade e Necessidade, sendo a Necessidade Dinâmica expressa por *HAVE (GOT) TO* e *MUST*, enquanto a Possibilidade Dinâmica é expressa por *CAN* e *BE ABLE TO*. A modalidade dinâmica é subdividida por Palmer² em dois tipos: a) Modalidade dinâmica neutra, (quanto à voz) com *CAN* indicando "possible for" e *MUST* para indicar "necessary for". b) "Subject Oriented", com o modal *CAN* indicando habilidade e o modal *WILL* de "willingness" ou volição. Palmer³ diz que *CAN* e *MUST* não são sempre neutros,

¹ Ibid., p. 69.

² Ibid., p. 35.

³ Ibid., p. 37.

mas que *HAVE (GOT) TO* sempre o é, sendo, por conseguinte, possível considerarmos *HAVE (GOT) TO* como sendo o modal representante de uma terceira subdivisão da modalidade dinâmica, que seria chamada de "*circunstancial*".

Dentro da possibilidade dinâmica o presente de *CAN* pode ser usado para referência futura, desde que a possibilidade seja vista como presente, que seja possível que alguma coisa venha a ocorrer no futuro. Também *WILL/SHALL BE ABLE TO* podem ser usados onde haja referência implícita ao futuro, onde a cena futura seja estabelecida e onde o futuro seja imaginado:

I will describe the scene and you'll be able to hear these recorded descriptions (S.I0.7b.II)

I mean, there'll be his mother and grandad so we won't be able to do anything exciting. (S.4.3.72)

Mais comum é a ocorrência de *WILL/SHALL BE ABLE TO* com condição futura implícita ou explícita:

... and he'll be able to save an awful lot of money, I should think by living there. (S.7.3f.65)

Na necessidade dinâmica *CAN* e o presente de *must* expressam a necessidade de eventos futuros:

... and we must do something about it. (S.8.Id.7)

WILL/SHALL HAVE TO mas não *WILL/SHALL HAVE GOT TO* ocorrem comumente quando há qualquer sugestão de que a necessidade é futura ou condicionalmente futura:

Well, I'll have to think about it. (S.8.3g.3)

I shall have to go into total silence for half an hour. (S.2.I0.73)

Em (Palmer 1974:120-2) o autor considerava *SHOULD* e *OUGHT*

como sendo "*Subject Oriented*", porém Palmer¹ diz agora que eles não são deônticos, são certamente dinâmicos e neutros.

O segundo tipo de modalidade dinâmica, chamado de "*Subject Oriented*" é expressa pelo modal *CAN* para indicar habilidade e o modal *WILL* que na realidade é o que mais nos interessa no momento. Sob este título Palmer² diz que é possível encontrar-se os três tipos de *WILL* aos quais Jespersen se referiu como sendo: *Volição*, *Poder* e *Hábito*. Palmer então separa o uso de *WILL* como "*dinamic e subject oriented*" do uso de *WILL* e *SHALL* para referência futura.

Examine-se agora os três usos citados por Palmer no parágrafo anterior:

1. VOLIÇÃO.

Palmer diz que não é fácil encontrar exemplos de *WILL* na forma positiva onde haja clara indicação de *volição* contrastada com futuro ou futuro condicional:

I'm seeing if Methuen will stump up any money to cover the man's time. (S.1.8.23)

O autor diz ser bem mais fácil encontrar exemplos de não-volição com *WOULDN'T* ou *WON'T* onde o significado é quase de uma recusa:

"But she loves him and she won't leave him, so she sells herself" (W.16.2.99.2)

Porém, com *I* como sujeito e mais raramente com *WE*, *WILL*

¹ Ibid., p. 100.

² Ibid., p. 108.

pode expressar concordância do falante em agir:

I'll have it lined for you, dear. (S.1.9.55)

Seria possível argumentar-se que este uso é essencialmente deôntico, mas com (*We, I*) *SHALL* não é usado deonticamente, pois expressa futuro. Com *WILL* em seu lugar, seria razoável argumentar-se que *WILL* é volicional, mas com (*I, We*) adquire significado de modal deôntico por implicação convencional, preenchendo assim uma lacuna deixada por *SHALL*. Note-se também que às vezes a noção de volição é muito fraca, assinalando simplesmente uma ação futura do falante que é benéfica ao ouvinte:

I'll put my glasses on (S.4.4.19)

WILL também é usado para expressar convites, mas Palmer diz que neste caso há dúvida, pois perguntar se alguém "*is willing*" equivale a um convite para agir:

Dick, will you stand by the anchor? (W.5.3.90)

Porém, quando *We* é usado, há concordância, havendo então ambos os sentidos, isto é, convite e oferta:

All right we'll do that, Judith. (S.8.4h.7)

2. PODER

Poder é um pouco mais forte que *Volição*, mas é aplicado a objetos inanimados para indicar comportamento característico:

You know that certain drugs will improve the condition.
(S.2.9.104)

Why do you think this ought to be put in a little box, as it were, with Shakeaspeare's work - Because it won't fit into any little box. It's not really a tragedy. (S.3.5a.33)

É neste ítem que o autor inclui o uso estudado anterior-

mente denominado "*Inference*":

Oil will float on water.

Pigs will eat anything.

Enquanto o primeiro exemplo refere-se ao poder ou habilidade inanimada do óleo para flutuar na água, o segundo é problema de poder ou volição.

3. HÁBITO

Este uso refere-se à atividade típica ou habitual:

These are visual things: you don't need words to convey them and countries as far apart as China and Wales will use the dragon to convey basically the same concepts without any words. (S.5.2.38)

Também quando WILL é acentuado, sugere atividade persistente e mesmo perversa:

You will keep on saying that the hunting of foxes is the merciful way of doing it. (S.5.6.22)

2.3.4.4. FUTURO COM WILL E SHALL

Em Palmer (1965:62-3, 1974:36-37) o autor afirmava que os gramáticos mais antigos davam um tratamento a *WILL* e *SHALL* que não era adequado, pois os dois auxiliares modais eram considerados somente como marcadores de futuro, e por terem características modais deveriam ser tratados como tal e não como simples marcadores de *tense*. Sabemos que eles são raramente indicam futuro puro, contendo sempre uma implicação semântica modal. Sendo *Be Going To* mais adequado para expressar simples fu-

turo.

"(...) on semantic grounds, BE GOING TO is more reasonably to be regarded as the form normally used for reference to the future"¹

A visão tradicional da gramática de *WILL* e *SHALL* expunha o segundo ocorrendo com *I* e *We*, e o primeiro com sujeitos de segunda e terceira pessoas (*YOU, HE, SHE, IT* e *THEY*). Tratamento igual era dado a *WOULD* e *SHOULD*. No entanto já é aceito na época atual que *WILL* ocorra com *I* e *We* mesmo quando indica futuro. Palmer² diz que existem poucas ocorrências de *WILL* indicando puro futuro e cita:

I will be perfectly frank with you. (S.2.I.6-12)

He wants to tell Professor Ford that we will meet him at Lime Street Station, Liverpool at ten fifty-three tomorrow, Friday. (S.9.3.75)

A ocorrência no negativo é bem mais freqüente:

I won't be back tonight. (S.7.3k.2)

Well, I probably won't see you. (S.7.3b.7)

Quando *Shall* ocorre com segunda e terceira pessoas não indica futuro, pois com tal pessoas ele é sempre deôntico. Também a ocorrência com *I* e *We* pode ser determinada pelo estilo e pelos dialetos.

Shall ocorrendo com *I* indica uma promessa por parte do falante com relação a ele mesmo, então o futuro estaria na dependência da vontade do falante. Porém, o uso expressando simples futuro é sempre possível:

¹ Ibid., p. 111.

² Ibid., p. 112.

Shall I be better tomorrow?

Com *WILL* e *SHALL* usados no condicional irreal (would e should) o mais comum é usarmos would com I.

2.3.4.5. CONDICIONALIDADE

Em muitos dos exemplos de *WILL/SHALL* para referência futura existe algum elemento de condicionalidade. Estes elementos de condicionalidade podem ser dos seguintes tipos:

1. Em apodosis a forma regularmente é Will, sendo a oração principal de uma condição real referente ao futuro. Usa-se um presente não-modal na prótasis (oração com if):

If John comes, Bill will leave.

If he feels like doing it, that'll save me the trouble.

(S.8.4e.7)

É importante notar-se que qualquer dos modais pode ser usado na apodosis com referência futura:

If John comes, Bill may/must/ought to/should leave.

Os eventos da oração com if podem estar também no presente ou no passado:

Look, if she didn't grudge you the weekend, she won't grudge you an alibi. (W.3.IC.17)

2. A condição pode ser expressa por coordenação com *and*, e a condição negativa por *or else*:

You put it under your pillow, and a fairy will come and give you. (S.4.3.II6)

3, Condicionalidade com outras conjunções:

When the demand for labour exceeds its supply, wages rise ...

When there is a surplus of labour, prices will not rise.

(S.12.2.8)

4, Condicionalidade implícita:

As the orchestra plays, the music from the instruments on the left will be heard predominantly with your left ear, but also, a fraction later, with your right. (W.15.4c.16)

I think that will require a considerable change in land use and habitat. (S.10.8a.53)

Estes exemplos não se referem a um futuro tido como certo, portanto *BE GOING TO* não é apropriado.

2.3.4.6. FUTURO MODAL COM WILL

WILL parece ser usado onde há referência a um estado de coisas, planejado, pretendido, previsto, esperado, opondo-se a uma declaração de que eventos específicos acontecerão realmente. É neste caso que ele indica *futuro modal*. Existem cinco tipos de futuro modal com *WILL*, segundo Palmer¹, sem sugestão de condicionalidade:

1, Quando eventos são previstos "*envisaged*":

Is it ever envisaged that the College will hive itself off from the University? (S.3.4.004)

¹ Ibid., p. 115.

Could you perhaps do something about a mortgage, because I suspect the Abbey National will just say "No" straight out. (S.8.Ip.I9)

Quando aparece o resultado de uma decisão, este é introduzido por *MEAN*:

It means they will have the utmost difficulty in paying for accomodation which a University College or the University provides ... this means students will have to work (S.II.2.I5)

2. Futuros esperados, decididos ou aqueles pelos quais se reza são introduzidos igualmente por *WILL*:

May I hope that those interested parties will not only be us here on Parliament, but the passengers who find themselves in Europe having to pay two or three times as much to travel by air as the same passengers would have to pay travelling in identical aircraft in the United States? (S.II.4.35)

Neste exemplo o segundo *WILL* indica volição.

Who decides what prices it'll go on market? - Whatever people will pay. (S.4.2.21)

3. Existem casos onde a cena futura é estabelecida por *BE GOING TO* ou *IS TO*, mas os fatos futuros dentro da cena são indicados por *WILL*:

Yet here we are going to find that there's going to be a National Enterprise Board which will be expected to do things in Scotland. (S.II.5.7I)

4. Da mesma maneira que *WILL* ocorre em orações subordinadas ou depois de algum verbo que tenha introduzido o futuro

planejado, etc., ele pode ocorrer sem subordinação ou sem algum outro verbo, desde que o futuro planejado seja descrito ou exposto:

My government will make it their special duty to protect the freedom of the individual under the law. (W.4.Ib.I4)

5. *WILL* pode ser também usado sem subordinação ou sem outro verbo, em instruções:

... and the President with head adverted and profile turned to me said 'Mrs. Dogson will walk on my right'. (S.I.3.33)

Também é utilizado *WILL* em ordens escritas na vida militar:

Private Jones will report at 08.00 hrs.

Note-se que é perfeitamente possível a ocorrência de *SHALL* nestes casos com sujeitos *I* ou *We*.

Note-se também que *WILL* e *SHALL* também podem ocorrer para referência futura mesmo quando não haja sugestão de que o futuro é planejado ou pretendido, etc.:

My babe-in-arms will be fifty-nine on my eighty-ninth birthday ...

Occasionally I sit down at home and open my diary for the year two thousand and fifteen when I shall be ninety. (S.5.5.II)

Com relação ao auxiliar will, é importante notar que ele ocorre sem sentido modal nas previsões meteorológicas:

Most area will have rain or thundery showers, but it will be mainly dry in Southern Scotland and much of Northern and Eastern England. (W.2.Ib.17)

2.3.4.7. WILL EM PRÓTASES

Quando a prótases indicar um evento hipotético no futuro sobre o qual a apodosis for condicional, será usada a forma de presente e não a forma com will:

It'll rain tomorrow.

If it rains tomorrow ...

Mas quando *WILL* não se referir ao futuro, este pode ser usado na prótasis, por exemplo para expressar volição, poder ou atividade persistente:

Volição: If only people will vote in sufficient numbers to put the Liberals back! (S.5.5.26)

Poder: I know that if medicine will save him, he'll be safe. (S.I.8.107)

Atividade persistente: If you will play it this way. (S.I.2.28)

2.3.4.8. WILL EPISTÊMICO

Palmer¹ considera *WILL epistêmico* como significando *Predição*, e não *Predição Futura*, pois o *WILL* epistêmico também se refere ao presente como pode ser visto na frase abaixo:

In the 1920s Wilkinson Sword introduced the stropable razor and the Empire! range which many people will remember. (W.I5.4a.5)

Palmer² também acentua o fato de que é muito difícil às vezes, distinguir-se um futuro puro de um futuro epistêmico,

¹ Ibid., p. 118.

² Ibid., p. 119.

mas também diz que esta distinção não é absolutamente impossível, e fornece quatro razões para que se distinga os dois usos de *WILL*:

a) A forma progressiva fornece uma interpretação epistêmica, como é possível depreender das sentenças abaixo:

John will come tomorrow.

John will be coming tomorrow.

b) Com *I* e *WE*, *WILL* e *SHALL* são mutuamente permutáveis, apresentando tão somente diferenças estilísticas no uso de referência futura, porém *SHALL* nunca é epistêmico.

c) O uso de referência futura tem pouco em comum com usos onde por exemplo é feito um julgamento epistêmico pelo falante. Contudo diz Palmer¹ que *WILL* (e *SHALL*) podem ser usados quando não existe nenhum julgamento epistêmico, mas sim uma simples declaração sobre o futuro:

I will/shall be fifty tomorrow.

d) Ainda resta o problema da "condicionalidade" da expressão de futuro com *WILL*, que sem dúvida não existe com *WILL* epistêmico.

¹ Ibid., p. 119.

MODAIS SEGUNDO JESPERSEN

WILL (auxiliar)

1. Futuro Puro
2. Volição
3. Promessa
4. Volição no futuro
5. Suposição
6. Hábito
7. Poder, capacidade
8. Futuro com infinitivo
passado
9. Volição própria
10. Exigência ou ordem

WOULD (passado de WILL)

1. Volição no passado
2. Hábito no passado
3. Imaginativo
4. Expressão fraca de desejo
5. Pedidos
6. Votos
7. Probabilidade
8. Imaginativo sem volição

SHALL (auxiliar)

1. Futuro
2. Obrigação
3. Obrigação por parte do
falante
4. Indagação
5. Conselho ou vontade do
ouvinte

SHOULD (passado de SHALL)

1. Obrigação real
2. SHOULD no presente
3. Conselho
4. Ausência de coação
5. Condicionais
6. SHOULD Emocional
7. SHOULD com expressão de medo

MODAIS SEGUNDO LEECH

WILL (modal)

1. Determinação ou volição
fraca
2. Insistência ou volição
forte
3. Intenção ou volição in-
termediária
4. Expressão de probabili-
dade

WOULD (expressão de passado)

1. Equivalente de WILL no passado
2. Insistência
3. Expressão de probabilidade

SHALL (modal)

1. Determinação ou volição
fraca
2. Insistência ou volição
forte
3. Intenção

SHOULD (expressão de passado)

1. Passado de SHALL
2. Coação
3. Substituto de OUGHT TO
4. Equivalente a OUGHT TO HAVE

MODAIS SEGUNDO PALMER (1974)

WILL (modal)

1. Volição
2. Insistência
3. Característica
4. Inferência

WOULD (expressão de passado)

1. Tentativa
2. Futuro no passado
3. Passado
4. Volição no passado
5. Insistência
6. Característica
7. Inferência com sentido de tentativa

SHALL (modal)

1. Obrigação

SHOULD (expressão de passado)

1. Equivalente a OUGHT TO
2. Indicação de tempo
3. Após verbos "*require*" e "*demand*"
4. Condicional

MODAIS SEGUNDO PALMER (1979)

MODALIDADE		WILL	WOULD	SHALL	SHOULD
DINÂMICA	EPISTÊMICA	<ul style="list-style-type: none"> - Referência futura - Declaração confiante - Predição 	<ul style="list-style-type: none"> - Tentativa 		<ul style="list-style-type: none"> - Tentativa - Conclusão
	ORIENTADA PELOS PARTICIPANTES DO DISCURSO			<ul style="list-style-type: none"> - Promessa - Pedido de Permissão - Regras e Regulamentos - Insistência - Garantia 	<ul style="list-style-type: none"> - Insistência
	NEUTRA				<ul style="list-style-type: none"> - Evento não ocorrido no presente ou no passado - Condição explícita - Fatos futuros com condição
	ORIENTADA PELO SUJEITO	<ul style="list-style-type: none"> - Volição - Poder - Hábito - Ação futura benéfica ao ouvinte - Pedidos - Futuro esperado ou planejado - Condicionais - Condicional de Habilidade 	<ul style="list-style-type: none"> - Pedidos - Ação típica do sujeito - Insistência do sujeito - Referência futura no passado - Tentativa de volição - Condicionais 		

2.3.5. ESTUDO COMPARATIVO DE PALMER (1974) E (1979)

Em (Palmer 1974:100-103) o autor dividia a modalidade em Epistêmica e não-Epistêmica, sendo esta última dividida em duas categorias distintas: a) modalidade orientada pelo discurso e b) modalidade orientada pelo sujeito. São assim considerados os usos de *CAN* e *WILL* orientados pelo sujeito e os de *MAY*, *SHALL* e *MUST* orientados pelo discurso. Palmer dizia também que a modalidade epistêmica independe da classificação dos usos modais em modalidade orientada pelo discurso e pelo sujeito. Apesar de na modalidade epistêmica ser o falante aquele que tem certeza ou quem demonstra incerteza, e o ouvinte que tem sua certeza ou incerteza questionada nas frases interrogativas, sem dúvida isto, de certa maneira, a torna semelhante ao conceito de modalidade orientada pelo discurso; a diferença reside, então, na sintaxe e na semântica:

Modalidade orientada pelo discurso: modal não marcado para *tense*, porém isto não quer dizer que um modal deste tipo só ocorra no presente, e sim que o modal em si não expressa passado sozinho, quem expressa passado, quem é marcado para "*past tense*" é o auxiliar não modal *Have*:

You *SHOULD* have done something about that debt.

Modalidade orientada pelo sujeito: Com algumas exceções o modal pode ser marcado para "*tense*":

John *WON'T* come (is not willing)

Modalidade Epistêmica: o verbo principal pode ser marcado para

"tense":

He can't have been there yesterday.

A Semântica mostra que os usos modais orientados pelo sujeito referem-se à habilidade ou determinação do sujeito gramatical da sentença indicando a ação, enquanto os usos modais orientados pelo discurso relacionam-se com a ação do falante em dar permissão, prometer ou impor obrigações.

Em *Modality and the English Modals*, Palmer¹ possibilita até certo ponto, a visualização das diversas modalidades, ou melhor, dos diversos usos dos modais em inglês, abrangendo em seu estudo os auxiliares modais, os semi-modais e alguns não-modais como *WOULD RATHER*, *HAD BETTER*, *IS TO*, *HAVE (GOT) TO* e *BE ABLE TO*.

Seguindo os estudos levados a termo pelos vários estudiosos da Lógica Modal, e conseqüentemente usando seus termos, o autor torna mais facilmente compreensível a visão de como os auxiliares modais e outras formas expressam as diferentes modalidades em inglês.

Primeiramente o autor adota a divisão de modalidade exposta por Lyons² e expõe os usos dos modais em torno de duas idéias centrais Necessidade e Possibilidade sendo o terceiro grau de modalidade expresso por *WILL* e *SHALL*, Probabilidade.

Palmer³ então divide a modalidade em três categorias: a) Epistêmica, b) Deôntica e c) Dinâmica a qual por sua vez se subdivide em a) Neutra (nem orientada pelo sujeito nem pelos participantes do discurso) e b) Orientada pelo sujeito.

¹ PALMER, Modality and the English Modals, p. 9.

² LYONS, Semantics, pp 787-841.

³ PALMER, Modality and the English Modals, p. 9.

No entanto, para os propósitos desta dissertação a modalidade será dividida em categorias tais como: a) epistêmica b) não-epistêmica a qual será chamada de orientada pelos participantes do discurso (utilizando o termo proposto por Palmer¹), por nos parecer mais adequado para denominar os usos modais nos quais o falante garante, promete, etc., sendo portanto usos performativos. c) Dinâmica, considerada por Palmer² como Dinâmica Neutra por não ser orientada pelo sujeito nem pelos participantes do discurso e d) modalidade orientada pelo sujeito na qual se localizam os diversos usos de *WILL* não-epistêmico.

Examine-se agora as tabelas apresentadas por categorias de modalidade:

2.3.5.1. EPISTÊMICA

Os principais modais que indicam os dois graus básicos de modalidade epistêmica são *MAY* e *MUST*, expressando respectivamente Possibilidade e Necessidade. Há também aí a ocorrência de *COULD* expressando *tentativa* e *certeza*. *BE BOUND TO* expressando *referência futura*, *MIGHT* para expressar *tentativa de MAY*, *referência presente e futura*, *HAVE (GOT) TO* expressando também *necessidade* e finalmente os modais em estudo nesta dissertação: *WILL* expressando *referência futura*, *declaração confiante* e *predição*, enquanto a forma *WOULD* expressa *tentativa de WILL*, e *SHOULD* (modal e não forma de *SHALL*) para *tentativa* e *conclusão*.

¹ PALMER, The English Verb, p. 100.

² PALMER, Modality and the English Verb, p. 35.

2.3.5. 2. MODALIDADE ORIENTADA PELOS PARTICIPANTES DO DISCURSO

Na modalidade orientada pelos participantes do discurso tem-se como expressando *possibilidade* os modais *MAY* e *CAN* e *necessidade*, o modal *MUST*. Aqui continuam existindo dúvidas com relação aos usos de *MUST* como orientado pelos participantes do discurso e como dinâmico neutro expressando *necessidade*. O terceiro grau de modalidade é aqui expresso por *SHALL*. *CAN* é o modal mais freqüente expressando *possibilidade*, *possibilidade alternativa futura*, *necessidade*, *permissão*, *pedido de permissão*, *ordens*, *sugestões sarcásticas* e em *regras e regulamentos*. Em seguida por ordem de freqüência tem-se *MUST* para expressar *necessidade*, também em *regras e regulamentos*, para expressar *insistência* e *necessidade fraca*.

SHALL vem a seguir expressando *promessa* ou *ameaça* (sendo a distinção entre ambos os sentidos esclarecida pelo contexto semântico), *pedido de permissão*, em *regras e regulamentos*, em *insistência* e *para garantir*. Com somente um uso tem-se *COULD* e *MIGHT* para pedir permissão e *SHOULD* para *Insistência*.

2.3.5.3 . DINÂMICA NEUTRA (OU CIRCUNSTANCIAL)

Na modalidade dinâmica neutra ou circunstancial tem-se para expressar *necessidade* *MUST* e *HAVE (GOT) TO*, enquanto *CAN* e *BE ABLE TO* expressam por sua vez, *possibilidade*. Aqui *CAN* é o mais usado e freqüente dos auxiliares modais, quando tem-se: *possibilidade neutra = fato possível*, *possibilidade atemporal*, *habilidade*, *implicação*, *referência a eventos futuros*, *possibilidade atemporal (fatos específicos futuros)*, *irrealidade*,

sugestões oferecidas e pedidos.

Para *necessidade* e *necessidade de eventos futuros* tem-se o modal *MUST*. *SHOULD* aí é usado em *eventos não-ocorridos* no presente ou no passado, *condições explícitas* e *fatos futuros com condição*. Os mesmos usos de *SHOULD* são mencionados para *OUGHT TO* pois segundo o autor:

"It is not at all clear that (...) English makes any distinction between *SHOULD* and *OUGHT TO*. They seem to be largely interchangeable even with tag questions, since there is nothing odd about:
He ought to come tomorrow, shouldn't he?"¹

Também tem-se *IS TO* para se referir ao que pode ser e para relatar ordens. Com *HAVE (GOT) TO* faz-se referência à *necessidade circunstancial*, na forma de passado para se referir à *implicação presente*. Enquanto com *WILL BE ABLE*, faz-se referência explícita ou implícita ao futuro, com *BE ABLE TO* faz-se referência a *possibilidade neutra*. Para *preferência* e *ousadia* tem-se respectivamente as formas *WILL/WOULD RATHER* e *DARE*. Para o que é *necessário* e *propósitos específicos*, tem-se *NEED*.

2.3.5.4. MODALIDADE ORIENTADA PELO SUJEITO

A modalidade orientada pelo sujeito expressa por sua vez os conceitos que existem nas categorias de modalidade estudadas anteriormente, isto é, *necessidade* e *possibilidade* ou *habili-*

¹ Ibid., p. 100.

dade, sendo o primeiro expresso por *MUST* e o segundo com o modal *CAN* de possibilidade e habilidade e *WILL* de determinação. O modal *WILL* com a forma *WOULD* é o mais característico desta categoria de modalidade, pois é o que expressa o terceiro grau de modalidade orientada pelo sujeito. Aqui *WILL* expressa *volição, poder, hábito, ação futura benéfica ao ouvinte, pedido, futuro esperado ou planejado*, sendo também usado nos condicionais e no condicional de *habilidade*. *WOULD* por sua vez é usado em *pedidos, ações típicas do sujeito, insistência do sujeito, referência futura no passado, tentativa de volição* e nos *condicionais*. *Is/Was To* apesar de não ser considerado modal é incluído no estudo da modalidade de Palmer pois indica referência ao que pode ser. A seguir temos *DARE* expressando *ousadia*, *WILL/WOULD RATHER* expressando *preferência*.

Apesar desta tabela proposta por Palmer e aqui modificada no que diz respeito aos termos utilizados, revelar um exame exaustivo das diversas modalidades expressas pelos auxiliares modais na língua inglesa, não explica o suficiente problemas tais como por exemplo, os existentes com relação a *SHOULD* considerado epistêmico e dinâmico; *SHOULD* e *OUGHT TO* apresentando dificuldades quanto à distinção de usos dos dois auxiliares.

Outro aspecto que pode ser considerado altamente desfavorável é a nomenclatura altamente generalizada que por assim o ser provoca dificuldades quanto à classificação dos usos envolvidos e um alto nível de ambigüidade. Fato este que pode ser compreendido se forem levados em consideração usos encontrados na modalidade epistêmica, tais como, *conclusão* que se apresenta como a) *conclusão confiante* e b) *conclusão*. O mesmo ocorren-

do na modalidade orientada pelos participantes do discurso com relação a: *possibilidade*, a) *possibilidade alternativa futura* e b) *possibilidade*. O uso denominado *permissão* é encontrado em declarações e como *permissão em pedidos* este último aparecendo duas vezes.

Ilustrando o mesmo problema na modalidade que foi conven-
cionada chamar de dinâmica neutra é possível citar o uso de
possibilidade que se apresenta como: a) *possibilidade neutra* =
fato possível, b) *possibilidade atemporal*, c) *possibilidade*
atemporal fato futuro específico. Necessidade é outro dos títu-
los subdividido pois é apresentado como a) *necessidade*, b) *ne-*
cessidade circunstancial, c) *necessidade de eventos futuros*,
d) *necessidade condicionalmente futura* e e) *necessidade para*
propósitos específicos.

Na modalidade orientada pelo sujeito o problema não se
apresenta de forma tão grave, pois as ambigüidades que existem
com relação a *WILL* e seus usos são próprios da modalidade e não
causados como os demais citados, por excesso de divisão e de
usos ou de nomenclatura. É importante notar que através desta
tabela visualiza-se os usos dos auxiliares modais mais estuda-
dos até o momento por despertarem maior interesse, isto é, *CAN*,
MAY, *MIGHT*, *WILL* e *SHALL* e *SHOULD*, enquanto *USED TO*, *DARE* e
NEED e as outras formas semi-modais e as consideradas como não
modais, mas que apresentam modalidades são quase que deixadas
de lado ou muito pouco estudadas.

Sem dúvida os interessados na Teoria da Comunicação podem
encontrar nos demais auxiliares modais um campo muito rico para
suas pesquisas.

3. AVALIAÇÃO DOS MODELOS

3.1. INSTRUMENTOS DE AVALIAÇÃO

Nesta etapa da pesquisa tornou-se necessário avaliar os três estudos sobre os modais apresentados na revisão da literatura.

Para que seja possível avaliar uma gramática torna-se necessário estabelecer critérios que demonstrem se a gramática em questão apresenta adequação. Esta seleção baseou-se em parte em Huddleston¹ que cita Chomsky. O autor enfatiza que as gramáticas gerativas devem apresentar *adequação interna e externa*, não devendo ser *ambíguas* e que devem apresentar *generalização* em um nível adequado. O autor do presente trabalho crê então que com alguma adaptação estes critérios podem também ser utilizados para avaliar gramáticas não-gerativas. Foram assim estabelecidos critérios considerados necessários para que se efetive uma boa avaliação dos estudos aqui considerados:

3.1.1. AMBIGÜIDADE

Ambigüidade aqui refere-se à classificação dos usos dos modais em categorias distintas. Uma boa gramática não pode proporcionar ao leitor, dúvidas com relação à qual das categorias

¹ HUDDLESTON, op. cit., p. 17.

um determinado uso pertence. Também é importante notar que cada uso dos modais não pode apresentar mais de um significado. Como o que acontece por exemplo com o uso de *SHALL* exposto por Leech¹. *SHALL* segundo o autor, em significado modal ou de expressão futura, apresenta graus de volição, isto é volição fraca por parte do falante, quando for usada a segunda e terceira pessoas, (You, He, She, It) e volição forte quando forem usados os mesmos pronomes. Torna-se muito difícil a um falante não-nativo distinguir tais graus de volição. Talvez fosse possível explicar estas ocorrências de outra maneira, ou simplesmente ignorar tais graus de volição, pois os mesmos dificultam sobremaneira a compreensão e tornam o uso em si muito ambíguo.

3.1.2. GENERALIZAÇÃO

A apresentação por um autor de um número muito grande de categorias pode conduzir à perda de generalização. Sendo aqui considerado o termo generalização como sendo a subdivisão de uma categoria ou uso em muitas categorias ou sub-usos, o que sem dúvida pode levar a falsas interpretações. Por outro lado, se um número muito reduzido de ocorrências for apresentado, distinções formais importantes ou particularidades lingüísticas podem ser perdidas. Portanto pode ser considerado como melhor modelo o daquele autor que conseguir em um número menor de categorias abranger o maior número possível de particularidades ou exceções, porém facilitando a compreensão do leitor, sem deixar a cargo de sua imaginação, a tarefa de re-classifi-

¹ LEECH, op. cit., p. 82.

car os casos expostos pelo autor.

3.1.3. DISTINÇÕES FORMAIS

Este terceiro critério refere-se à divisão dos usos dos modais *WILL* e *SHALL* em categorias e sub-categorias que demonstrem adequadamente sua utilização na língua inglesa, bem como se a gramática em questão é adequada internamente. Não sendo possível considerar para esta pesquisa, por exemplo, como modelo adequado a gramática de Jespersen, a qual não leva em consideração as distinções formais dos modais *WILL* e *SHALL* como epistêmicos ou deônticos, ou ainda neutros. Tampouco outras distinções formais como o uso "*tentative*" não foi abordado, sendo considerado como distinção formal atual.

Portanto a gramática escolhida deverá refletir diferenças formais atuais no campo da Lingüística e da Semântica, isto é, o modelo escolhido deverá ser adequado externamente refletindo ao mesmo tempo a teoria exposta na primeira parte desta dissertação.

3.1.4. VALIDADE TEORÉTICA

Quanto à validade teórica, o modelo selecionado deverá sem dúvida, refletir valores referentes à aplicabilidade de sua teoria, isto é, será considerado como modelo adequado aquele que for mais abrangente em relação aos dados. A teoria exposta em tal modelo deverá solucionar problemas relacionados com a maior variedade possível de interesse dos estudiosos da língua inglesa e conseqüentemente dos modais. Tanto o principiante,

como o aluno de estágio mais avançado, e até os interessados no ensino dos modais deverão se beneficiar com a teoria exposta pelo autor do modelo mais adequado para servir de base para esta pesquisa.

Examine-se os três modelos propostos segundo os critérios adotados:

1. AMBIGÜIDADE

Quanto à questão da ambigüidade, Jespersen apresenta algumas falhas em seu modelo:

1. Ao chamar o terceiro uso de *WILL* de *promessa*, *ameaça* ou *certeza* não fornece nenhum elemento que possibilite a distinção por parte do leitor entre este uso e os dois anteriores (Futuro puro e Volição), conforme exemplos citados pelo próprio autor:

FUTURO PURO

Look out or you *WILL* be run over.

I'm afraid you'll have to submit.

You (he, she) *WILL* come of age next year.

VOLIÇÃO (DESEJO ATUAL)

Who *WILL* have some lemonade?

I *WON'T* stand any nonsense.

I *WILL* not be intimidated or talked back to.

PROMESSA, AMEAÇA OU CERTEZA

I'll tell you some other day. I *WON'T* forget it.

I'll take care that it *SHALL* be all right.

I *WILL* call him to account. He *SHALL* pay dearly for this affront.

Ainda no que diz respeito ao segundo uso de *WILL*, *volição*, todos os falantes nativos consultados declararam ser a diferença semântica entre este uso e aquele do futuro muito fraca. Jespersen diz que o hábito é expresso freqüentemente por *WILL*, pois:

*"What one does willingly, one is apt to do frequently; hence will often denotes habit."*¹

Porém no exemplo "*Accidents WILL occur in the best regulated families*", viu-se que sem dúvida não existe "*willingness*" expressa.

Jespersen² diz que *WILL* quando usado com objetos inanimados expressa poder ou capacidade, porém este uso além de apresentar dubiedade e de ter sido esta afirmação baseada somente na semântica, por indicar possibilidade ou tendência, parece muito semelhante ao uso chamado pelo autor de *Hábito*.

Do mesmo modo é totalmente impossível dizer que a ambigüidade seja uma característica de todo ausente da obra de Geoffrey Leech, pois ele já se apresenta quando o autor sugere a característica *volição* como presente nos três usos de *WILL*,

¹ JESPERSEN, op. cit., p. 272.

² Ibid., p. 271.

Determinação, Insistência e Intenção.

A presença de volição nos usos 1 e 3 torna difícil a sua distinção ao leitor comum e mesmo aos estudantes de nível mais adiantado, mas podem ser compreendidos se forem considerados os exemplos:

- a. My chauffeur *WILL* help you.
- b. I *WILL* write tomorrow.
- c. We'll celebrate this very night.

Se for exposto o exemplo "a" - "*My chauffeur WILL help you*" a um exame mais cuidadoso, ver-se-á que a promessa que aí ocorre é expressa pelo falante e não pelo sujeito gramatical da oração, podendo ser considerado epistêmico, pois o falante é quem está relacionado com a verdade da proposição expressa pela sentença.

Porém, o mesmo não ocorre com os exemplos "b" - "*I'll write tomorrow*" e "c" - "*We'll celebrate this very night*"., onde poderá ser considerado como sendo responsável pelo status da proposição o sujeito gramatical das duas orações.

Resta ainda perguntar aqui se é suficiente a ocorrência do mesmo com primeira pessoa (I, We) para que este uso seja considerado como não-epistêmico.

Também com relação ao uso *Predição*, Leech¹ diz que o mesmo pode ser relacionado com a implicação da referência futura de *WILL* e *SHALL*, mais do que os três usos anteriores (*insistência, intenção e expressão de probabilidade*), porém parece que aqui existe algo diferente envolvido. Talvez o status da verdade da proposição. Neste caso o oposto seria verdadeiro,

¹ LEECH, op. cit., p. 79.

pois nos três exemplos citados não seria possível inserir-se um advérbio de futuro:

By now they *WILL* be dancing in the hall.

That *WILL* be teacher of mathematics.

The airplane *WILL* have landed by now.

Quanto às sentenças:

a. If the patient develops a temperature of 39° C the nurse *WILL* give him double doses of the prescribed medicine.

b. If the disease causes impairment of the function of the heart, the usual symptoms of cardiac failure *WILL* be superimposed on the acute rheumatic process.

c. Whenever ammonia is added to a substance it *WILL* turn to orange.

d. If you add ammonia to a substance it *WILL* turn to orange.,

é possível verificar-se a existência de grande diferença entre elas, pois enquanto "a" não pode ocorrer com verbo não-modal no presente, o mesmo pode ocorrer nas demais frases. É importante notar também que em "a", "b" e "d" existe referência de tempo hipotético.

Quanto às sentenças "e", "f" e "g", nota-se que as mesmas não apresentam significado habitual:

e. She *WILL* go reading all day if you don't stop her.

f. He'll go all day without eating.

g. On competition days, the students *WILL* be in county-hall by seven o'clock, and they *WILL* stay there till the last result is given.

Leech¹ diz que WILL significando *expressão de probabilidade* pode conduzir a certa ambigüidade com relação a *expressão de probabilidade e volição* se for usado na forma abreviada 'll, mas está bem claro que o uso desta forma implicará em perda de acentuação, havendo conseqüentemente mudança de significado, perdendo-se o sentido de volição.

Quanto à comparação que Leech² faz do uso de WILL em declarações científicas em geral e as mesmas declarações com SIMPLE PRESENT nas frases abaixo:

- a. Oil WILL float in water.
- b. Oil floats in water.
- c. Apple trees blossom in Spring.
- d. The school bus arrives at 7.50 daily.

No exemplo "a" pode-se verificar a presença de um tempo hipotético, enquanto que a mesma frase no *simple present* "Oil floats in water", não passa de um simples relato do fato. Pode-se dizer então que "c" e "d" não são igualmente nada mais além de simples relatos de fatos observados.

Leech³ considera "This car won't start" ou "This watch won't work" como a possível personificação de um objeto. Mas parece haver aqui novamente o relato de um estado como se pode observar em:

This door won't open.

Ainda é possível a verificação de uma centralidade de referência de tempo hipotético existente na frase:

The classroom WILL seat 60.

¹ Ibid., p. 80.

² Ibid., p. 80.

³ Ibid., p. 80.

Porém, apesar de sua validade, esta tentativa de Leech em dar nomes aos modais, tendo como ponto central o teste de colocação de advérbios, parece ser de certa maneira ilusória.

Com relação aos usos de *WOULD* e a sua não aceitação por Leech¹ como modal à parte, isto parece passível de dúvida, pois é fato conhecido que este auxiliar modal na maioria das vezes não se refere ao passado de *WILL*.

Por sua vez a frase que Leech² cita como exemplo de expressão de probabilidade ou predição "*In spring the birds WILL return to their nests*" - "*In spring the birds WOULD return to their nests*" é muito usada em descrições de personagens ou de comportamento característico, parece ser também mais o relato de um evento repetido, o que está implícito no fato deste uso aparecer freqüentemente em descrições de personagens.

2. GENERALIZAÇÃO

Jespersen apresenta um número muito grande de usos para os modais *WILL* e *SHALL*, oito para *WILL*, cinco para *WOULD*, quatro para *SHALL* e seis para *SHOULD*. Seria portanto mais lógico se Jespersen tivesse utilizado em seu trabalho um número menor de categorias, evitando assim, não só perda de generalização como ocorrências ambíguas. Quanto a Leech, pode-se dizer que do mesmo modo que no item anterior, o autor, subdividindo o uso *volição* em três, contribuiu para aumentar os problemas relativos à existência de um número muito grande de usos, pois pela sua subdivisão leva o estudo sobre os auxiliares modais a apresen-

¹ Ibid., p. 91.

² Ibid., p. 91.

tar perda sensível, tornando a tarefa do pesquisador mais complexa. Seria perfeitamente possível os três usos serem englobados em um só, deixando a sua distinção a cargo da Semântica ou do leitor auxiliado pelo contexto.

Quando Leech subdivide o uso *SHOULD = OUGHT TO* em dois usos diferentes, aumenta o número de categorias, causando igualmente perda de generalização. Talvez uma divisão menor levasse a uma compreensão maior, pois em alguns casos só existe mesmo diferença no que diz respeito aos títulos sugeridos, permanecendo os mesmos significados.

Palmer classifica os usos dos modais *WILL* e *SHALL* usando um número bem maior de categorias em "*The English Verb*", do que em seu novo livro "*Modality and the English Modals*". Na primeira obra como vimos anteriormente, enquadra *WILL* em quatro usos: *volição, insistência, característica e inferência*, subdividindo este último em duas ocorrências diversas. A primeira refere-se a verdades não dependentes do fator tempo, isto é, que podem ser provadas por indução:

Oil *WILL* float on water.

A segunda é usada para conclusões dedutivas:

Bill is John's father and John is Tom's father, so Bill *WILL* be Tom's grandfather.

Quanto à classificação de *WOULD*, em Palmer (1974) vê-se a existência de sete categorias: *tentativa, futuro no passado, passado, volição, insistência, característica e inferência* no sentido de *tentativa*, as quais, sem dúvida, Palmer generalizou e explicou dizendo em Palmer (1979) ser *WOULD* forma relevante de *WILL*.

Por outro lado em Palmer (1974), o autor não se esten-

deu tanto com relação ao modal *SHALL*, dizendo ser este modal orientado para o discurso, o que não leva com relação a *SHALL* a uma perda de generalização, embora esta explicação difira daquela dada em Palmer (1979), pois a última segue mais de perto a teoria proposta por Lyons no começo desta dissertação, o que leva o autor a categorizar o modal *SHALL* em modal deôntico, expressando usos tais como ameaça e promessa. A distinção entre os dois, porém, só é possível se o leitor-ouvinte levar em consideração o seu aspecto semântico.

Com relação à forma *SHOULD*, na primeira obra estudada tem-se três usos distintos, isto é *SHOULD = OUGHT TO*, indicação de tempo, após verbos de "require" e "demand" e "condicional", ao passo que em Palmer (1979), o autor considera *SHOULD* simplesmente como forma marcadora de necessidade epistêmica e enquadra *SHOULD = OUGHT TO* como referente a fatos que deverão ocorrer após o tempo de fala:

To diminish the pain the nurse *SHOULD* give the patient two pills of the prescribed medicine.

Nota-se então que, por uma diminuição sensível do número de usos ou categorias indicadas pelo autor, em Palmer (1979) há um ganho sensível no que diz respeito à generalização.

3. DISTINÇÕES FORMAIS

Quanto às distinções formais, pode-se dizer que Jespersen não leva em consideração este aspecto ao escrever sua gramática, pois sua principal preocupação foi com relação ao aspecto estrutural e o fornecimento de listas de usos dos modais *WILL* e *SHALL*.

Leech, no entanto, preocupa-se não tanto com o aspecto das distinções formais dos usos dos auxiliares modais *WILL* e *SHALL*, mas sim com sua função comunicativa dentro do discurso. Tendo se preocupado também com a questão da titulação dos usos, tornou às vezes sua compreensão por parte dos falantes não-nativos muito difícil, embora suas outras obras sejam de fácil compreensão e de grande aceitação.

Palmer¹, por sua vez, diz ser importante que qualquer estudo sobre modalidade abranja os aspectos semânticos tanto quanto os formais da língua em estudo. Vai mais além dizendo que os aspectos formais são os mais importantes.

Ao considerar *WOULD* como forma tentativa de *WILL*, Palmer passa a ignorar todas as outras ocorrências por ele citadas em "*The English Verb*", ignorando, da mesma forma, as possíveis distinções formais desta forma de *WILL*, porém, não se pode esquecer que em Palmer (1979) o autor diz:

*"Generally the modality is in the present only, because the judgements are made in the act of speaking, epistemic modals being in this sense usually "performative" ... The modal verbs are not normally used, therefore in past tense forms to refer to past judgements. Past tense forms are normally tentative with present time reference."*²

Desta forma o autor explica sua classificação de *WOULD* (epistêmico) como unicamente forma tentativa de *WILL*, o que

¹ PALMER, Modality and the English Modals, p. 1.

² Ibid., p. 50.

causou o aparecimento de um ponto falho em toda sua teoria sobre modalidade. Da mesma maneira Palmer explica que também os modais deônticos podem não ter forma de "past tense" para expressar "past time":

*"Deontic modals can have no past tense forms for past time. Neither in the modality nor in the event can there be any indication of past time. One cannot in the act of speaking give permission, lay an obligation or give an undertaking in the past or in relation to past events ... Yet a past tense form may occur in reported speech."*¹

Justificam-se assim as modificações introduzidas em Palmer (1979) com relação às distinções formais relacionadas com os modais *WILL* e *SHALL*.

Também em Palmer (1974:100) o autor diz serem os modais emparelhados por diversos autores e que estes mesmos autores preocuparam-se com o estudo semântico dos modais e classificaram-nos em duas categorias: a) Modais orientados para o discurso e b) Modais orientados para o sujeito. O segundo tipo sendo relacionado com a atividade iniciada pelo sujeito e o primeiro com atividade iniciada por um dos participantes da conversação. Em declarações é o falante quem inicia, garantindo ou prometendo e em perguntas é o ouvinte de quem se exige uma promessa ou garantia.

¹ Ibid., p. 67.

É possível resumir dizendo que segundo Palmer¹ os modais orientados para o sujeito relacionam-se semanticamente a alguma atividade, qualidade ou *status* do sujeito da sentença, enquanto que os orientados para o discurso relacionam-se com a participação de uma das partes no discurso (o falante em declarações e o ouvinte em perguntas):

John *WILL* come tomorrow.

John *SHALL* come tomorrow.

Na primeira sentença é João quem concorda em vir e na segunda é o falante que garante a vinda de João.

Palmer² vai mais além dizendo que os modais orientados para o discurso juntamente com os modais epistêmicos são modais verdadeiros pois marcam modalidade e não são parte da proposição. São também parte do ato de fala, têm força ilocucional pois são usados para prometer, permitir ou exigir promessas ou permissões, o que não ocorre com os modais orientados para o sujeito, pois esses são mais semelhantes aos verbos catenativos.

Palmer³ diz que *WILL*, *SHALL*, *CAN* e *MAY* têm formas de "past tense" - *WOULD*, *SHOULD*, *COULD* e *MIGHT*, mas que semântica e sintaticamente estas formas se relacionam de três modos diferentes: - primeiro existem severas restrições no que se refere às formas de "past tense" para expressar ou marcar o passado, pois *could* e *would* podem marcar tempo passado, mas somente sob certas condições, enquanto *MIGHT* raramente é usado para tal fim e *SHOULD* nunca o é. Em segundo lugar todos podem ocorrer na se-

¹ PALMER, The English Verb, p. 100.

² Ibid., p. 101.

³ PALMER, Modality and the English Modals, p. 29.

qüência de tempo exigida quando se usa "Reported Speech":

He will/shall/can/may come tomorrow.

I said he would/should/could/might come tomorrow.

Em terceiro lugar, would, could e might são usados para expressar tentativa ou irrealidade. É necessário observar que *MUST* e *OUGHT* não têm forma morfológica de "Past tense", nem tampouco *DARE* e *NEED*, *SHOULD*, entretanto, não é tratado como uma forma de *SHALL*:

"... *should* is more problematic. It has nothing in common with *SHALL*, except when it is used with the sequence of tenses rule for reported speech, ..., but belongs rather with *OUGHT TO*".¹

Morfologicamente só o modal pode ser marcado para "tense", pois somente formas finitas são marcadas para tense e o verbo principal é sempre não-finito. No entanto, diz Palmer², que a proposição pode ser marcada para passado com *HAVE*:

John may have been reading.

Também em "Modality and the English Verb" Palmer³ se refere à sua afirmação sobre tipos de modalidade em Palmer (1974) dizendo que ela não era totalmente correta sob dois aspectos:

1, Alguns dos modais não-epistêmicos não são orientados para o discurso nem para o sujeito. (O autor inclui aqui o terceiro tipo de modalidade, a neutra). São portanto neutros,

¹ Ibid., p. 33.

² Ibid., p. 50.

³ Ibid., p. 35.

pois, segundo Palmer¹, é possível que um evento ocorra sem que sua possibilidade se relacione ao sujeito ou ao falante:

John can't come tomorrow.

The real effort is the metaphorical one. It is the memory which shall not grow old. (S.2.5.22)

2. Alguns dos modais não se encaixam em um ou outro dos três tipos de modalidade, por exemplo *CAN* pode ser orientado para o sujeito e neutro enquanto *MUST* pode ser orientado para o discurso e neutro. Palmer² então re-classifica a modalidade em:

- a. modalidade dinâmica neutra
- b. orientada para o sujeito

Tal re-classificação modifica toda a teoria proposta em Palmer (1974), enriquecendo-a.

Também em Palmer (1974:103), o autor aborda a possibilidade de distinguir-se *WILL* e *SHALL* usados para expressar futuro dos outros usos modais, sendo a distinção entre ambos feita mediante o teste de colocação de advérbios de futuro.

It'll rain tomorrow.

The letters will arrive in a few days.

We shall see them next week.

I shall be ill tomorrow.

Em Palmer (1979:119) o autor não mais se refere a tal teste, mas diz haver quatro razões para que não se confunda o *WILL* epistêmico com referência futura e o uso de *will* para expressar o futuro:

1. A forma progressiva é usada em inglês para distin-

¹ Ibid., p. 36.

² Ibid., p. 37.

guir o uso de referência futura do uso epistêmico com referência futura:

John *WILL* come tomorrow.

John will be coming tomorrow.

A forma progressiva normalmente evidencia uma interpretação epistêmica.

2. Com I e We, will e shall são passíveis de troca com diferenças somente de estilo no uso de referência futura, mas shall nunca é epistêmico.

3. O uso de referência futura tem muito pouco em comum semanticamente com usos tais como "*They'll be on holiday*" (onde existe ocorrência de um uso epistêmico, isto é, o julgamento é emitido pelo falante. Porém *WILL* e *SHALL* podem ser usados onde não há julgamento epistêmico, mas simples expressão de futuro:

I will/shall be fifty tomorrow.

4. Diz Palmer¹ que tratar *WILL* referência futura simplesmente como epistêmico não explica sua condicionalidade, pois esta existe em muitos exemplos de *WILL/SHALL* usados para referência futura.

Apesar de representar obras de grande valor como fonte de consulta, e manual para os estudiosos da função comunicativa da língua inglesa, respectivamente as obras de Jespersen e de Leech estudadas nesta dissertação, não apresentam níveis de adequação interna e externa tão acentuados como a obra de Palmer "*Modality and the English Modals*". Demonstrando esta adequação interna do modo como estuda os diferentes aspectos dos auxiliares modais *WILL* e *SHALL*, observando também os itens estudados

¹ Ibid., p. 119.

até agora, ou seja, Ambigüidade, Generalização e Distinções Formais no que diz respeito às formas estudadas pelo autor. A *adequação externa*, por sua vez, fica claramente demonstrada quando se examina a obra de Lyons que fundamenta esta dissertação e vê-se o quanto ela se encontra na segunda obra de Palmer aqui examinada.

4. VALIDADE TEORÉTICA

Essentials of English Grammar de Otto Jespersen foi sem dúvida a obra gramatical mais importante na sua época, pois rompendo com os prescritivistas, o autor passou a utilizar em suas obras não mais os modelos dos clássicos, mas sim exemplos extraídos do cotidiano, o que o levou a se preocupar com a imposição de um padrão linguístico à sociedade da época. Porém, apesar destes aspectos importantes, atualmente sua obra serve mais como fonte de referência que de estudos, ao menos no que diz respeito ao estudo dos modais *WILL* e *SHALL*.

As obras de Geoffrey Leech, mais especialmente "*Meaning and the English Verb*" que foi aqui analisada em parte, por tratar mais especificamente dos usos dos auxiliares modais que interessam a esta dissertação, visa o estudo da função comunicativa do discurso inglês. Como este autor, ao escrever suas obras, se preocupa mais com os aspectos comunicativos que com os estruturais, relaciona as estruturas gramaticais aos significados, usos e situações, e através de exposição detalhada torna mais fácil o aprendizado da língua em questão para os alunos que dela se utilizam. Ao escrever sobre os auxiliares modais, Leech não deseja, acredita-se, estabelecer nenhuma teoria nova,

preocupando-se outrossim com o fator aprendizagem.

Palmer, no entanto, continua aperfeiçoando seus estudos no sentido de cada vez mais descobrir fatos novos e importantes sobre os modais e a modalidade em inglês. Tanto em sua primeira obra "*The English Verb*" como em "*Modality and the English Modals*", Palmer trata do assunto *modais* sob todos os aspectos; comunicativos, semânticos, lingüísticos, estruturais e formais, o que torna o autor e sua obra, mais especificamente a segunda aqui examinada, a mais indicada para esta pesquisa, pois é principalmente a mais abrangente das obras examinadas para a realização desta dissertação.

4. RESULTADOS DA APLICAÇÃO PRÁTICA DO MODELO ADOTADO

Para se estudar os usos modais típicos da língua inglesa e os das três variedades estudadas nesta pesquisa foi necessário que após a análise dos três autores estudados e a posterior coleta de dados se classificasse os usos modais pela tabela considerada a melhor. Obtiveram-se então os seguintes resultados por área:

ÁREA: ENGENHARIA MECÂNICA

		MODALIDADE	WILL	WOULD	SHALL	SHOULD	TOTAL	
		EPISTÊMICA		1. REFERÊNCIA FUTURA	48			
		2. DECLARAÇÃO CONFIANTE	146				146	
		3. PREDIÇÃO	26				26	
		4. TENTATIVA		7			7	
ORIENTADA PE- LOS PARTICIPAN- TES DO DISCURSO		5. CONCLUSÃO				1	1	
		6. PROMESSA						
		7. PEDIDO DE PERMISSÃO						
		8. REGRAS E REGULAMENTOS						
		9. INSISTÊNCIA			1	80	81	
		10. GARANTIA						
DINÂMICA		NEUTRA						
				11. EVENTOS NÃO OCORRIDOS NO PRESENTE OU NO PASSADO			1	1
				12. CONDIÇÃO EXPLÍCITA			8	8
				13. FATOS FUTUROS COM CONDI- ÇÃO			1	1
				14. VOLIÇÃO	1			1
				15. PODER	24			24
				16. HÁBITO	59			59
				17. AÇÃO FUTURA BENÉFICA AO OUVINTE	6			6
				18. PEDIDOS				
				19. FUTURO ESPERADO OU PLA- NEJADO	7			7
				20. CONDICIONAIS	19	15		34
				21. CONDICIONAL DE HABILIDA- DE	3			3
				22. AÇÃO TÍPICA DO SUJEITO		57		57
		23. INSISTÊNCIA DO SUJEITO		10		10		
		24. REFERÊNCIA FUTURA NO PASSADO		19		19		
		25. TENTATIVA DE VOLIÇÃO						
		TOTAL	339	108	1	91	539	

ÁREA: BOTÂNICA

		MODALIDADE	WILL	WOULD	SHALL	SHOULD	TOTAL	
		EPISTÊMICA	1. REFERÊNCIA FUTURA		24			
2. DECLARAÇÃO CONFIANTE			33				33	
3. PREDIÇÃO			5				5	
4. TENTATIVA				8		4	12	
ORIENTADA PE- LOS PARTICIPAN- TES DO DISCURSO	5. CONCLUSÃO					7	7	
	6. PROMESSA							
	7. PEDIDO DE PERMISSÃO							
	8. REGRAS E REGULAMENTOS							
	9. INSISTÊNCIA				2	46	48	
DINÂMICA	NEUTRA	10. GARANTIA						
		11. EVENTOS NÃO OCORRIDOS NO PRESENTE OU NO PASSADO						
		12. CONDIÇÃO EXPLÍCITA				7	7	
	ORIENTADA PELO SUJEITO	13. FATOS FUTUROS COM CONDI- ÇÃO						
		14. VOLIÇÃO						
		15. PODER						
		16. HÁBITO		53				53
		17. AÇÃO FUTURA BENÉFICA AO OUVINTE		1				1
		18. PEDIDOS		1				1
		19. FUTURO ESPERADO OU PLA- NEJADO						
		20. CONDICIONAIS		20	20			40
	21. CONDICIONAL DE HABILIDA- DE							
	22. AÇÃO TÍPICA DO SUJEITO			32			32	
	23. INSISTÊNCIA DO SUJEITO			30			30	
	24. REFERÊNCIA FUTURA NO PASSADO			19			19	
	25. TENTATIVA DE VOLIÇÃO							
TOTAL			137	109	2	64	312	

AREA: MEDICINA

		MODALIDADE	WILL	WOULD	SHALL	SHOULD	TOTAL	
		EPISTÊMICO	1. REFERÊNCIA FUTURA		44			
2. DECLARAÇÃO CONFIANTE			24				24	
3. PREDIÇÃO			15				15	
4. TENTATIVA				17		2	19	
ORIENTADA PE- LOS PARTICIPAN- TES DO DISCURSO	5. CONCLUSÃO					7	7	
	6. PROMESSA							
	7. PEDIDO DE PERMISSÃO							
	8. REGRAS E REGULAMENTOS							
	9. INSISTÊNCIA					311	311	
	10. GARANTIA							
DINÂMICA	NEUTRA	11. EVENTOS NÃO OCORRIDOS NO PRESENTE OU NO PASSADO				1	1	
		12. CONDIÇÃO EXPLÍCITA				58	58	
		13. FATOS FUTUROS COM CONDI- ÇÃO						
	ORIENTADA PELO SUJEITO	14. VOLIÇÃO						
		15. PODER		4				4
		16. HÁBITO		71				71
		17. AÇÃO FUTURA BENÉFICA AO OUVINTE		1				1
		18. PEDIDOS						
		19. FUTURO ESPERADO OU PLA- NEJADO		5				5
		20. CONDIÇIONAIS		22	14			36
		21. CONDIÇIONAL DE HABILIDA- DE		1				1
		22. AÇÃO TÍPICA DO SUJEITO			28			28
		23. INSISTÊNCIA DO SUJEITO			4			4
		24. REFERENCIA FUTURA NO PASSADO			31			31
		25. TENTATIVA DE VOLIÇÃO			1			1
TOTAL			187	95	0	379	661	

ÁREA: INGLÊS EM GERAL

		MODALIDADE	WILL	WOULD	SHALL	SHOULD	TOTAL	
		EPISTÊMICA	1. REFERÊNCIA FUTURA	74				
2. DECLARAÇÃO CONFIANTE	128						128	
3. PREDIÇÃO	85						85	
4. TENTATIVA				18		8	26	
ORIENTADA PE- LOS PARTICIPAN- TES DO DISCURSO	5. CONCLUSÃO			1		27	28	
	6. PROMESSA				3		3	
	7. PEDIDO DE PERMISSÃO							
	8. REGRAS E REGULAMENTOS							
	9. INSISTÊNCIA				2	110	112	
	10. GARANTIA				1		1	
DINÂMICA	NEUTRA	11. EVENTOS NÃO OCORRIDOS NO PRESENTE OU NO PASSADO				4	4	
		12. CONDIÇÃO EXPLÍCITA				6	6	
		13. FATOS FUTUROS COM CONDI- ÇÃO						
	ORIENTADA PELO SUJEITO	14. VOLIÇÃO	7					7
		15. PODER	21					21
		16. HÁBITO	16					16
		17. AÇÃO FUTURA BENÉFICA AO OUVINTE	2					2
		18. PEDIDOS	1					1
		19. FUTURO ESPERADO OU PLA- NEJADO	23					23
		20. CONDICIONAIS	30	54				84
		21. CONDICIONAL DE HABILIDA- DE	1					1
		22. AÇÃO TÍPICA DO SUJEITO		75				75
		23. INSISTÊNCIA DO SUJEITO		33				33
24. REFERÊNCIA FUTURA NO PASSADO			239			239		
25. TENTATIVA DE VOLIÇÃO			3			3		
TOTAL		388	423	6	155	972		

PERCENTUAL POR ÁREA

As tabelas abaixo mostram o cálculo de percentagem dos modais por áreas e em geral:

ENGENHARIA MECÂNICA

MODAIS	%
WILL	62,89
WOULD	20,03
SHALL	0,18
SHOULD	16,14

BOTÂNICA

MODAIS	%
WILL	43,91
WOULD	34,93
SHALL	0,64
SHOULD	20,51

MEDICINA

MODAIS	%
WILL	28,29
WOULD	14,37
SHALL	0
SHOULD	57,33

INGLÊS EM GERAL

MODAIS	%
WILL	39,91
WOULD	43,51
SHALL	0,61
SHOULD	15,94

Para fins de comparação o conteúdo destas tabelas pode ser apresentado numa tabela de percentual geral como se segue:

PERCENTUAL GERAL

MODAIS \ ÁREAS	ÁREAS			
	E. MEC.	BOTÂNICA	MEDICINA	I. GER.
WILL	62,89%	43,91%	28,29%	39,91%
WOULD	20,03%	34,93%	14,37%	43,51%
SHALL	0,18%	0,64%	0%	0,61%
SHOULD	16,14%	20,51%	57,33%	15,94%
TOTAL	99,24%	99,99%	99,99%	99,97%

Desta maneira obteve-se a ordem de ocorrência modal:

MODAIS \ ÁREAS	ÁREAS			
	E. MEC.	BOTANICA	MEDICINA	I. GER.
WILL	1	1	2	2
WOULD	2	2	3	1
SHALL	4	4	4	4
SHOULD	3	3	1	3

Calculou-se a partir destes resultados a ordem de frequência dos modais por área:

ORDEM DE FREQUÊNCIA

MODAIS	ÁREAS			
	E. MEC.	BOTÂNICA	MEDICINA	I. GER.
WILL	339	137	187	388
WOULD	108	109	95	423
SHALL	1	2	0	6
SHOULD	91	64	379	155

Para verificar se a distribuição dos usos dos auxiliares modais *Will* e *Shall* eram estatisticamente significantes, aplicou-se o teste do X^2 por modal, onde com três graus de liberdade e significância 0,05, obteve-se:

MODAIS	VALOR DA TABELA	VALOR CRÍTICO X^2
WILL	7,82	163,83
WOULD	7,82	415,99
SHALL	7,82	8,48
SHOULD	7,82	356,22

Tais resultados foram obtidos mediante a aplicação da fórmula:

$$X^2 = \sum \left(\frac{f_o - f_e}{f_o} \right)^2$$

Sendo os valores críticos obtidos mediante a aplicação da fórmula do X^2 maiores que os valores fornecidos pela tabela¹, verifica-se que a distribuição dos usos modais é estatisticamente significante, não tendo sido, portanto, feita de modo aleatório. (Ver cálculos - Anexos).

¹ LEVIN, J. Estatística Aplicada às Ciências Humanas. Trad. Sérgio Francisco Costa. 2 ed. São Paulo, Harper & Row do Brasil, 1978, p. 293.

5. CONCLUSÕES LINGÜÍSTICAS

A língua inglesa não pode ser considerada como um espécimen facilmente isolável, preparado e examinado em laboratório como um ser unicelular. Tal procedimento é impossível pois a língua inglesa é um conjunto de variantes, "registers" que podem ser usadas em situações dadas. Estas variantes, como componentes de um todo, têm mais semelhanças entre si do que elementos de diferenciação, entretanto, ao mesmo tempo cada uma delas distingue-se claramente das demais.

Pode-se, portanto, considerar os auxiliares modais aqui estudados como sendo um dos elementos de diferenciação das três variantes estudadas em alguns usos, enquanto nos demais os usos modais característicos da língua podem ser considerados como elementos de semelhança entre todos os componentes do todo que é a língua inglesa.

A classificação dos dados e o posterior estudo dos percentuais obtidos, da frequência e ocorrência dos modais e usos modais permitem fazer algumas considerações quanto aos aspectos lingüísticos dos modais *Will* e *Shall* nas áreas aqui estudadas:

1. *Will*, *Would* e *Should* apresentam maior número de usos modais em evidência nos textos lidos. Confirma-se assim o desuso cada vez mais acentuado do auxiliar modal *Shall*. Nos textos

específicos de Medicina (250.000 palavras lidas) não houve nenhuma ocorrência do auxiliar modal *shall*, enquanto que em número igual de palavras lidas de textos específicos de Botânica houve duas ocorrências deste modal.

2. Cada uma das áreas estudadas apresenta um auxiliar modal mais freqüente, podendo os mesmos serem considerados como modais característicos de área:

ÁREA	MODAL
ENGENHARIA MECÂNICA	WILL
BOTÂNICA	WILL
MEDICINA	SHOULD
INGLÊS EM GERAL	WOULD

3. Verificou-se nas quatro áreas estudadas frequência constante de alguns usos, os quais podem ser considerados como sendo usos característicos da língua inglesa em seu estágio atual.

WILL	WOULD	SHALL	SHOULD
Referência futura	Tentativa		Conclusão
Declaração confiante	Condicionais		Insistência
Predição	Ação típica do sujeito		Condição explícita
Hábito	Insistência do sujeito		
Ação futura benéfica ao ouvinte	Referência futura no passado		
Condicionais			

4. Outros usos modais de *Will* e *Shall*, por sua vez podem ser considerados como usos característicos das áreas, pois ocorrem mais freqüentemente, ou quase que exclusivamente, nestas áreas:

WILL

USOS MODAIS \ ÁREAS	E. MEC.	BOTÂNICA	MEDICINA	I. GERAL
Fatos futuros com condição	X			
Poder	X		X	X
Futuro esperado ou planejado	X		X	X
Condicional de habilitação	X		X	X

WOULD

USOS MODAIS \ ÁREAS	E. MEC.	BOTÂNICA	MEDICINA	I. GERAL
Tentativa de Volição			X	X

SHALL

USOS MODAIS \ ÁREAS	E. MEC.	BOTÂNICA	MEDICINA	I. GERAL
Promessa				X
Insistência	X		X	X
Garantia				X

SHOULD

USOS MODAIS \ ÁREAS	E. MEC.	BOTÂNICA	MEDICINA	I. GERAL
Tentativa		X	X	X
Eventos não ocorridos no presente ou no passado	X		X	X

5. Verifica-se, assim, que dos 16 usos modais de *Will* propostos na tabela no início deste trabalho, quando se estudava a variação e evolução dos modais, restam agora (ou pelo menos apareceram nos textos aqui lidos), somente dez usos. Isto certamente não exclui a possibilidade de em outros textos que não os aqui examinados, ou mesmo em textos de outros "registers", aparecerem outros usos para este modal.

6. Com relação a *Would*, no exame da parte citada no item anterior, havia 24 usos enquanto tem-se nos textos lidos a ocorrência mais freqüente de 6 usos.

7. No que diz respeito a *Should* tinha-se ao todo 12 usos, restando agora somente 6.

De tais fatos é também possível concluir que:

a) Alguns usos dos modais *WILL*, *WOULD*, *SHALL* e *SHOULD* desapareceram ou foram englobados por outros usos.

b) Nas próprias tabelas propostas por Palmer (1979) poderiam ser feitas algumas modificações visando englobar, ou mesmo desdobrar alguns usos, ou somente mudar a titulação de outros para torná-los mais abrangentes, o que, sem dúvida, tornaria mais fácil a tarefa do classificador.

Portanto, fica aqui uma sugestão para os estudiosos do assunto *modais* ou mesmo para os estudiosos da Semântica e da Teoria da Comunicação.

6. IMPLICAÇÕES PARA O ENSINO

A classificação dos dados leva o autor deste trabalho a concluir que para cada área correspondem alguns usos característicos que devem ser levados em consideração quando da elaboração não só do *syllabus* de língua inglesa em geral, mas também dos cursos de ESP (English for Specific Purpose), pois certamente o que vem sendo ensinado até agora não cobre as necessidades próprias dos alunos que necessitam da língua inglesa para o estudo de textos de suas disciplinas específicas. Também os demais cursos de língua inglesa oferecidos pelas várias instituições existentes, certamente deveriam incluir em seus programas os usos modais de *WILL* e *SHALL* extraídos de textos científicos já examinados, bem como dos demais que ainda venham a sê-lo, pois tal possibilidade não foi excluída com esta dissertação.

Como se fará tal inclusão ou mesmo que estratégias serão utilizadas para se levar a efeito a aprendizagem do assunto aqui estudado, ficará, sem dúvida, a cargo dos professores envolvidos no processo.

REFERÊNCIAS BIBLIOGRÁFICAS

- 1 CHOMSKY, Noam. Aspects of the theory of syntax. 10. ed.
Cambridge, MIT Press, 1975. 251 p.
- 2 CRYSTAL, David & DAVY, Derek. Investigating English style. London, Longman, 1974. 264 p.
- 3 EWER, J. R. Further notes on developing an English programme for students of science and technology (1).
English Language Teaching Journal, 26(1):65-70, Oct. 1971.
- 4 HALLIDAY, M. A. K. System and function in language.
Oxford, Oxford University Press, 1976. 250 p.
- 5 HORNBY, A. S. The advanced learner's dictionary of current English. London, Oxford University Press, 1963. 1200 p.
- 6 HUDDLESTON, Rodney. An introduction to English transformational syntax. London, Longman, 1976. 273 p.
- 7 JESPERSEN, Otto. Essentials of English grammar. 20. ed.
London, Allen & Unwin, 1974. 387 p.
- 8 JOOS, Martin. The English verb; form and meaning.
Madison, University of Wisconsin Press, 1968. 251 p.
- 9 LEECH, Geoffrey. Meaning and the English verb. London, Longman, 1977. 125 p.
- 10 LEVIN, Jack. Estatística aplicada às ciências humanas.
São Paulo, Harper & Row do Brasil, 1978. 310 p.

- 11 LYONS, John. Introduction to theoretical linguistics.
Cambridge, Cambridge University Press, 1977. 519 p.
- 12 _____. Semantics. Cambridge, Cambridge University Press,
1977. 2 v.
- 13 PALMER, F. R. The English verb. 2. ed. London, Longman,
1974. 268 p.
- 14 _____, Modality and the English modals. London,
Longman, 1979. 196 p.
- 15 QUIRK, Randolph & GREENBAUM, Sidney. A university
grammar of English. London, Longman, 1978. 484 p.
- 16 READING and thinking in English. Oxford, Oxford
University Press, 1979. v. 2.
- 17 WEBBE, Elizabeth. Sleeping beauty. Chicago, Rand
McNally, 1962. 20 p.
- 18 WIDDOWSON, H. G. Literary and scientific uses of
English. English Language Teaching Journal, 28(4):282
-92, July 1974.
- 19 _____, Teaching language as communication. London,
Oxford University Press, 1978. 168 p.
- 20 WILKINS, D. A. Linguistics in language teaching. London,
Arnold, 1972. 243 p.

ANEXO 1

CÁLCULO DO χ^2 POR AUXILIAR MODAL

WILL

	O ₁	E ₁
ENGENHARIA MECÂNICA	339	262,75
BOTÂNICA	137	262,75
MEDICINA	187	262,75
INGLÊS GERAL	388	262,75
TOTAL	1051	1051

$$E_1 = \frac{N}{K} = \frac{1051}{4} = 262,75$$

$$X^2 = \sum \frac{(O_1 - E_1)^2}{E_1}$$

$$X^2 = \frac{(339 - 262,75)^2}{262,75} + \frac{(137 - 262,75)^2}{262,75} + \frac{(187 - 262,75)^2}{262,75} + \frac{(388 - 262,75)^2}{262,75}$$

$$X^2 = \frac{(76,25)^2}{262,75} + \frac{(-125,75)^2}{262,75} + \frac{(-75,75)^2}{262,75} + \frac{(125,25)^2}{262,75}$$

$$X^2 = \frac{5814,06}{262,75} + \frac{15813,06}{262,75} + \frac{5738,06}{262,75} + \frac{15687,56}{262,75}$$

$$x^2 = 22,12 + 60,18 + 21,83 + 59,70$$

$$x^2 = 163,83$$

WOULD

	O ₁	E ₁
ENGENHARIA MECÂNICA	108	183,75
BOTÂNICA	109	183,75
MEDICINA	95	183,75
INGLÊS GERAL	423	183,75
TOTAL	735	735

$$E_1 = \frac{N}{K} = \frac{735}{4} = 183,75$$

$$X^2 = \sum \frac{(O_1 - E_1)^2}{E_1}$$

$$X^2 = \frac{(108 - 183,75)^2}{183,75} + \frac{(109 - 183,75)^2}{183,75} + \frac{(95 - 183,75)^2}{183,75} + \frac{(423 - 183,75)^2}{183,75}$$

$$X^2 = \frac{(-75,75)^2}{183,75} + \frac{(-74,75)^2}{183,75} + \frac{(-88,75)^2}{183,75} + \frac{(239,25)^2}{183,75}$$

$$X^2 = \frac{5738,06}{183,75} + \frac{5587,56}{183,75} + \frac{7876,56}{183,75} + \frac{57240,56}{183,75}$$

$$x^2 = 31,22 + 30,40 + 42,86 + 311,51$$

$$x^2 = 415,99$$

SHALL

	O ₁	E ₁
ENGENHARIA MECÂNICA	1	2,25
BOTÂNICA	2	2,25
MEDICINA	0	2,25
INGLÊS GERAL	6	2,25
TOTAL	9	9

$$E_1 = \frac{N}{K} = \frac{9}{4} = 2,25$$

$$X^2 = \frac{(1 - 2,25)^2}{2,25} + \frac{(2 - 2,25)^2}{2,25} + \frac{(0 - 2,25)^2}{2,25} + \frac{(6 - 2,25)^2}{2,25}$$

$$X^2 = \frac{(-1,25)^2}{2,25} + \frac{(0,25)^2}{2,25} + \frac{(-2,25)^2}{2,25} + \frac{(3,75)^2}{2,25}$$

$$X^2 = \frac{1,56}{2,25} + \frac{0,06}{2,25} + \frac{5,06}{2,25} + \frac{14,06}{2,25}$$

$$X^2 = 0,69 + 0,026 + 2,24 + 6,24$$

$$X^2 = 8,48$$

SHOULD

	O ₁	E ₁
ENGENHARIA MECÂNICA	91	172,25
BOTÂNICA	64	172,25
MEDICINA	379	172,25
INGLÊS GERAL	155	172,25
TOTAL	689	689

$$E_1 = \frac{N}{K} = \frac{689}{4} = 172,25$$

$$X^2 = \frac{(91 - 172,25)^2}{172,25} + \frac{(64 - 172,25)^2}{172,25} + \frac{(379 - 172,25)^2}{172,25} + \frac{(155 - 172,25)^2}{172,25}$$

$$X^2 = \frac{(-81,25)^2}{172,25} + \frac{(-108,25)^2}{172,25} + \frac{(206,75)^2}{172,25} + \frac{(-17,25)^2}{172,25}$$

$$X^2 = \frac{6601,56}{172,25} + \frac{11718,06}{172,25} + \frac{42745,56}{172,25} + \frac{297,56}{172,25}$$

$$x^2 = 38,32 + 68,02 + 248,16 + 1,72$$

$$x^2 = 356,22$$

ANEXO 2

TEXTOS PESQUISADOS

TEXTOS DE ENGENHARIA MECÂNICA

ANDERSON, H.H., CENTRIFUGAL PUMPS, 2. ED., MORDEN, TRADE AND TECHNICAL PRESS, 1978, 467 p.

WILL

p. 9 It is obvious that the cavitation will be dependent upon the velocity of water entering the impeller and on the relative velocity of the impeller blades where the water is picked up.

Experience of this and other pumps will permit the building of larger and higher speed machines.

The experience range permits us to lay down rules of design and performance which will to some extent hold good for steps into the darkness.

p. 17 For very large duties and relatively high heads, a single entry impeller will permit a considerable increase of shaft diameter, thereby giving greater rigidity and simplification of layout.

p. 25 Since a centrifugal pump is a dynamic device for raising the pressure of a liquid, the increase of pressure expressed as head of the liquid and determined according to Newton's laws will vary as the square of the rotational speed.

Similarly, the quantity pumped expressed as a volume of the liquid passing through the pump in unit time will vary as the first power of rotational speed.

In consequence, the power taken to drive the pump will vary as the product of the above, that is to say, as the cube of the rotational speed subject to any small correction that may be made for change of efficiency with size or with speed.

When we consider a geometric increase of size of pump whilst maintaining the same rotational speed, it follows that the head will vary as the square of this size, since the peripheral speed is only increased by the diameter change.

The flow will increase proportional to the size since the

peripheral velocity has so increased, but, in addition, the flow will increase proportional to the square of the size since the areas have so increased.

P. 29 The word 'water' will, therefore be used in the general sense in describing pumps and in the particular sense in cavitation calculations unless otherwise specified.

In design calculations and discussions, the duty of the pump will refer to its performance, litres/sec, metres head and revolutions per minute at the best efficiency point unless otherwise specified when describing the complete characteristics.

P. 33 The whirl velocity which is determined by the impeller peripheral velocity forward and the relative impeller flow velocity backward, will, therefore be considerably higher than in the preceding case, and the pump head will also be considerably higher.

Regarding the flow quantities in each of the above cases, it is obvious that with a very narrow impeller, the flow velocity through the large throat will be very small indeed.

Conversely with the very wide impeller and small throat, the velocity within the throat will approach the peripheral velocity of the impeller.

P. 45 The chart also shows the shape of impeller for the various type numbers and the type of head volume, power and efficiency characteristics expected. It will be seen that the low type number pumps at the left hand end of the chart have a head characteristic which does not rise very greatly between best efficiency point and zero flow, whilst the high type numbers at the right hand end of the chart have a head characteristic which rises very steeply from best efficiency flow to zero flow. (Reference 10).

This was introduced in chapter 5 and will be discussed in detail later.

Increase of size and speed will, therefore, increase at a greater rate than the losses, which are varying in the ratio of velocity to the neighbourhood of 1.7 or 1.8.

P. 55 A highly polished surface on a model will result in a higher efficiency than the chart value since this model becomes a geometric replica of a larger machine which has the normal finish of the machines on the chart.

P. 59 Just as the Registrar General is able to forecast very accurately the average behaviour of human beings in any future year without being able to say who will fail to conform to accepted standard, so the designer having a statistical analysis of several thousand pumps is able to forecast that next year's 50 pump tests will result in X% of pumps having faulty head characteristic, Y tests per pump and Z% of pumps being low

in efficiency and requiring modification or new parts, without being able to say which pumps will be faulty.

P. 63 Since the cavitation aspects determine the running speed which, in turn, determines the basic dimensions of the pump, cavitation will first be discussed.

P. 69 The operating speed of the pump and its size will affect the inlet type number but, in general, the flow in l/s at best efficiency point can be referred to Fig. 19 where inlet type number is plotted against flow in l/s.

A reduction of flow into the vessel will lower its level until the pump by partial vapourisation reduces its flow to correspond to the lower NPSH obtaining.

P. 73 The horsepower curve will, therefore, rise beyond the maximum efficiency point since the slope of the head quantity curve at best efficiency point will be less than 45° .

P. 77 For a given head the typical type number and area ratio can be taken from Fig. 13. Knowledge of the type number will permit calculations of the running speed (duly checked by the cavitation limitations described above and arranged to suit the driver).

Site conditions may, however, demand a steeper curve than is normal for the head and type number involved - a lower value of area ratio must therefore be taken from Fig. 23 which will result in a larger impeller for the same duty with larger disc friction and slightly lower efficiency.

P. 89 On multistage pumps where flexibility occurs by varying the number of stages, it is generally possible to adhere closely to a constant type number; but of course, the head per stage will, in consequence, increase when on constant speed as the size increases.

P. 93 The power characteristic will still be rising at efficiency point, so that if this pump is required for a head which is likely to vary downwards, a larger power of motor will be involved to prevent overloading.

It will be noted that the very low type numbers associated as mentioned above with small sizes can use particularly high area ratios.

Rectangular hyperbolic lines show the product of type numbers and area ratio and it will be seen that the majority of points in the experience curve seemed to be grouped along such lines.

P. 102 It is probable that in the future the casting of titanium will be a commercial proposition which will be of great value to the pump and chemical industries.

P. 110 Axial thrust will however arise in the pump as follows:

(1) If the inlet pressure differs from atmospheric pressure, for example, a suction lift, there will be a thrust, in tens of Newtons, away from the motor equal to the area in square centimeters of the circle corresponding to the sleeve diameter multiplied by the suction lift expressed in bars.

P. 114 The deflection of the shaft at the impeller under radial loading will have no effect on the critical speed of the pump portion of the shaft which is determined in the usual manner.

P. 130 The pump in general will deliver water into a pipe, but in some cases, the pump may be immersed in a reservoir in a similar manner to certain low head small turbines.

P. 134 It will be appreciated of course, that the conversion of velocity energy to an increase of pressure at the final discharge is only possible in a taper pipe where the flow is free from disturbance.

It will be appreciated that pressure measurements taken close to an impeller are liable to considerable error due to disturbance of flow.

There is therefore mutual advantage to pump maker and customer in specifying that the performance guarantees for the pumping plant will be based upon pressures at the inlet and outlet to the pumping station itself, appropriate pipe and valve friction losses being allowed.

This is due to the fact that the flow from a pump will often have a high velocity at the centre of the pipe so that the total energy in that pipe is very much greater than would be determined from a reading of pressure gauge and the allowance of velocity head assuming uniform flow across the pipe diameter.

The measurement remote from the pump will give a more accurate value of the total energy since by mixing of the stream an improvement of flow pattern results.

P. 138 When a pump is operating on a given system, the flow will stabilise at a point where the generated head is equal to the static head plus friction and velocity head, the operating point being determined by the intersection of the pump characteristic and the total friction characteristic of the system (Fig. 44).

P. 142 It will be appreciated that where the head is wholly frictional, priming of two stages will suffice to free the later stages of air.

P. 153 The attack of high speed feed water on mild steel renders a depth of a millimeter or so of the metal spongy, so that metal spraying or welding will not hold.

The attacked mild steel will not show sparks when ground, nor will it produce curlings when machined, but will instead

machine like cast iron.

P. 171 In general a two stage pump will have a more rigid shaft than that of a single stage because, although the span between bearings is greater, the shaft diameter is generally larger to transmit the greater power and in addition a certain amount of support is derived from the water lubricated central sleeve bearing.

P. 176 This bowl chamber will have a number of integral diffusers which decelerate the water and conduct it radially inwards to the entry of the next impeller. On the lower type number, the impeller will discharge the water into renewable bronze diffusers within a cast iron or bronze chamber which returns the water to the inlet of the next impeller.

P. 180 With this long pipe, the water will be drawn down to the limiting suction lift capacity of the pump, which is of the order of 9m at zero flow, after which partial cavitation prevents any further lowering of the well, so that the pump remains full of water and able to resume pumping when the well level rises.

P. 184 The factors obtaining in a borehole favour the use of a submersive pump on the small quantity high head duties, since the high speed pump with several stages to generate a high head and the omission of the vertical drive shafting will permit this high speed.

P. 208 Thermal, Nuclear and Hydro Power Stations are advancing in size and duty as quickly as present day metallurgical research will permit and in consequence the severe duty pumps described in the following chapters represent to day's limits of what metals can do and review a totally different standard of performance with respect to power for a given size from the normal run of everyday pumps.

P. 216 The bolts holding the casing elements together to form a pressure vessel are partially exposed to the air, and consequently will change temperature less rapidly than the casing wall which is in contact with the feed water.

Conversely, when the casing is cooled suddenly to a temperature below that of the bolts, the resulting differential expansion will cause a reduction of bolt tension.

The thermal shock will also cause risk of malalignment of bearings and bushes internally, and of pump and driver externally, if the elements of the pump are allowed to expand unequally with respect to the axis of the shaft.

P. 224 It will be appreciated that the feed pump at 200/260°C is a steam accumulator at 16/46 bars capable, where the motor is switched off, of reversing the feed pump at dangerous speed if an outlet for the steam is provided.

P. 228 It is seen that the 100 - MW pump barrel of mild

steel, 9.2 cm thick, will be just on the yield point at its outer surface during the cooling shock of 550°C.

P. 248 It is necessary to ensure that pre-load will be maintained at the inner casing joint during a cold shock and that the suction casing will not be subjected to excessive stresses during a hot shock.

Joint pre-load is unlikely to be lost during a cold shock since hydraulic pressure in the suction casing will assist in making the joint.

P. 278 With this combination of size and speed, heads, velocities, and stresses in the model will represent those of the full-scale machine and, by applying a suitable correction for efficiency based upon change of Reynolds number, an accurate forecast of the full-scale performance can be obtained.

P. 327 It will be appreciate that a slight escape of feed water such as could occur with the circulating pump shown in Fig. 117 could do little harm, but in a Nuclear Power Station, the escape of one drop of radio active liquid could be quite dangerous.

P. 337 The compressor of the gas turbine, jet plane or space vehicle is really a fluid pump and the liquid pumps for similar duties will tend to follow gas turbine developments.

Numerically controlled generated flow surfaces with high surface finish will be essential.

Since a centrifugal pump is a dynamic machine, it follows that for a given point on the characteristic and for a given speed the volumetric quantity (litres per second or m^3/h) and the head in metres of liquid pumped will remain constant.

Reduction of specific gravity will not affect flow or head, but will reduce output if expressed in kilograms of liquid per minute, will reduce pressure in bars, and will reduce power.

P. 346 For the moderate temperatures, refinery and process engineers will often specify a higher table of flanges than the pressure apparently needs in order to ensure absence of leakages.

P. 370 Consequently, if two motors of similar rating have equal conventional efficiencies, then their true efficiencies will be very similar also.

Conventional electric motor tests to BS.269 are, therefore, convenient for the vast majority of applications and are slightly conservative on efficiency for pumps which will finally be driven by other means.

P. 375 These curves will be similar to the variable speed curves shown in Fig. 41, chapter 23, but showing diameters changes instead of speed changes.

p. 386 The enormous demand of developing countries over the next 30 years will involve mass production with batch runs of 10.000 components of a very wide range of pumps compared to the present relatively small runs of a few hundreds.

For stage heads up to 1000m sophisticated moulding techniques will produce impellers, diffusers and casings of adequate surface finish but in the range of stage heads from 1000 to 4000m the high flow velocities up to 300 metres/sec will demand fully machined surfaces on solid forgings.

Pumps will then be produced in numbers comparable to present car manufacture.

p. 391 The liquid entering the suction branch will have a pressure which is greater by a certain margin than its saturation pressure for the particular temperature.

If the pressure drop between inlet branch and impeller passages becomes as great as the margin above saturation, then saturation conditions will obtain in the impeller and the liquid will tend to vaporise with consequent loss of pressure and risk of erosion of the impeller.

Consequently, if the specific gravity of the fluid is reduced by passing the liquid to vapour, the pressure generated will be reduced similarly, although the head expressed as feet of fluid will remain unaltered.

p. 395 If the pressure remains unaltered the loss in energy will be given by the algebraic difference of the squares of the velocities.

p. 399 If due to the varying value of Y the quantity Q for maximum hydraulic efficiency is greater or less than quantity to give $UW/G = U^2/2G$ then the power curve will fall or rise after maximum efficiency power.

p. 434 The head coefficient will give the Newton head which is generated by dynamics of the pump.

WOULD

p. 1 Such devices would appear to be as old as man himself.

p. 21 On the other hand, where power is expensive and where a pump is running for a large proportion of the day, the multistage design, working on a more favourable type number, that is with improved impeller proportions as a result of a lower head per stage, would perform the duty mentioned above with an efficiency of 70%.

The greater cost of the multistage pump would be justified on reduced power consumption.

A reciprocating pump on this duty would give an even higher efficiency, but would be uneconomic on cost of installation.

P. 29 Here a purist would say that we should always use the term "liquid" when discussing pumps.

P. 33 With a low area ratio, that is a small impeller area with a large casing throat, we would expect to generate a low head and to have the best efficiency point corresponding to a flow velocity in the throat which is a very small proportion of the peripheral velocity.

At the other extreme, with a large impeller area and a small casing throat, we would expect to generate a head corresponding to a forced vortex which, we will see later, approaches twice the velocity head, and to have a flow velocity in the throat at best efficiency point which approaches the peripheral velocity of the impeller.

P. 37 In order to explain disparity between the above formula and actual test, they assumed that, at best efficiency point, flow would coincide with the impeller vane angle when an infinite number of vanes were provided.

The author's attempts to correlate theory and experience (Reference 2 and 6) suggested that the point at which relative flow coincided with the vane angle represented zero head, since a larger flow would necessarily represent a turbine.

P. 41 In fairness to these earlier investigators it must be appreciated that they would have only a few pumps available on which it is easier to alter outlet angle than casing throat whilst, in contrast, a designer now has access to several thousand pumps of varying designs.

P. 49 Each of the many test points was corrected to the efficiency it would give at optimum type number according to Fig. 13 so that type number is eliminated as a variable from this chart.

P. 63 For example, at a slightly greater quantity a lower head would obtain and the NPSH, according to the above formula, would be lower, whereas, in fact, a larger quantity would involve a greater NPSH.

P. 93 Between these two limits, for example, on area ratios of 1 1/2 to 2, an optimum efficiency would be attained, the design being intermediate between the two examples mentioned above, but the optimum efficiency will be very little greater than the efficiency of the two extremes in question.

P. 126 The hard packings used in reciprocating duties would tend to score a rotating shaft or sleeve.

P. 134 There is also considerable advantage in using full flow valves, for example, plug or ball valves on the pump delivery branch, followed by a long taper, thereby economising in diameter of valve and avoiding the disturbance of flow preceding the taper, which would result from a sluice valve.

P. 184 The introduction of the electric motor fostered the development of Centrifugal pumps, particularly on borehole duties where a vertical spindle motor at ground level would drive a pump at the water level through a length of vertical shafting.

P. 204 Figs. 69 and 70 show low pressure multistage pumps (up to 35 bars) the pipe which would be available largely from stock, whilst figure 72 shows a high pressure pump.

P. 228 The station designers stated that a severe cooling shock at the power station would not be likely to exceed 100°C in 2 minutes.

In the light of this information on the behaviour of thick walls of metal under the works thermal shock test and the site operation of the 100 - MW pumps, it was considered that to proceed from a 100 - MW unit to a 200 - MW unit where a 18.5 cm thick mild-steel barrel would be involved, would not be practical since the resulting total stress, under constant temperature conditions, would be 11 hectobars, and the shock conditions would cause autofrettage which was excessive in extent and in being on both sides, inner and outer, of the barrel wall.

P. 240 A reduction of efficiency of 1 1/2 to 2 per cent occurs in the gear box, but this may be offset by the overall saving of capital cost, particularly as the introduction of a gear box to permit speeds higher than those corresponding to a two-pole motor would, at no extra cost, permit a ratio of gears suitable for a slower motor which in certain circumstances, for example, with wound rotor, may be desirable.

It would appear that the generator sizes are approaching the limit, at 50 cycles, that can be manufactured and transported in Britain, whilst the turbine limit has not yet been reached.

The use of electric feed pumps of, say, 20 MW would therefore subtract 20 MW from the total output of the generators, but a mechanical drive from the generator would only involve power in the steam turbine, leaving the full generated output available for the grid.

P. 282 It would appear that this development is suitable for heads in the range of 50 - 500 m in one stage, which would involve peripheral and flow speeds similar to those in comparable Francis turbines on heads from 60 - 600m.

P. 300 It would appear that although the motor generator is heavier than the pump turbine, it can however, be largely assembled and wound on site.

On future plant, overall efficiencies of the order of 70% would appear to justify the economics of storage schemes and such an efficiency is within present endeavour.

P. 370 If that were done, however, and if pump efficiencies were quoted on the basis of such a measurement, pump manufacturers would have to bear in mind that when they were called upon to give a guaranteed consumption of, say, kilowatts input to liquid power, they would still have to work on motor efficiencies in accordance with BS. 269, and it would therefore be up to them to ensure that they used well designed motors which would have their stray losses kept down to a minimum value.

Pump makers who do not make motors sometimes use dynamometers, but a set of dynamometers giving consistency of readings as accurately as electric motors would be far too expensive for commercial testing and, in any case, these dynamometers would be driven by electric motors or embody electric motors.

P. 375 The efficiency curves are then transposed by increasing the flow of each test reading proportional to the impeller diameter so that all efficiency curves irrespective of diameter have the same value of flow at their peak thus making it much easier to view the performance with the colour range than would be the case if the efficiency curves crossed as in Fig. 41.

P. 382 The reason for the stay vanes is readily seen when we consider that for a large pump or turbine of 100 MW at 300 m head, the completed circle of the volute section, C-plate and stay ring would require to have a thickness of at least 5 cm on high tensile steel plate.

To hold the C-section rigid without the link effect of the stay ring would be entirely impracticable on units of this size and power.

P. 386 Testing would then involve perhaps one pump in a batch of 100 to ensure that quality is maintained.

P. 391 The head generated by a centrifugal pump is expressed as the height to which a liquid of given specific gravity would be raised.

P. 403 This ratio would then be regarded as the quantity handled by a pump when reduced geometrically to give 1 metre head at 1 rev/min.

P. 408 To simplify recording, the symbol AA is used in those cases where types 4, 5, 6 and 7 would normally be listed.

P. 434 From Fig. 13, chapter 6, the efficiency would be, say, 80 per cent, making the losses $100 - 80 = 20\%$.

For a volute pump the losses would be initially estimated as follows:

SHOULD

P. 59 It should be borne in mind, however, that BS 599 (and its successor BS 599/66 does not provide for pump performance scatter which can be quite large on smaller sizes. (See Chapter 26).

P. 102 Many pumps are made with metal impellers and casings which are afterwards coated by rubber, plastic or ceramic, but in these applications it is essential that the covering should be entirely free from any flaws or cracks as otherwise its purpose will be defeated and the liquid will have access to the more vulnerable metal frame.

P. 130 For this reason the pump maker should be consulted in the layout and arrangement of the complete pumping station, since many cases of faulty pump performance have, in the past, been traced to inadequate flow conditions preceding the pump.

Ideally, each pump should have its own culvert and be provided with some means of preventing prerotation of water at the bellmouth.

P. 134 It is therefore important that the velocity energy at the pump delivery branch should be converted to pressure energy with a minimum of loss, for example, by using the tapers suggested by Gibson (Reference 24).

P. 142 As mentioned earlier, it is absolutely essential that the suction pipes and suction passage should avoid any air pockets, the suction pipe to this end rising progressively to the pump.

P. 155 It should be mentioned in passing that a sub-committee of ISO is at present preparing an international duty and dimension code for pumps using the British Standards BS4082 and BS4519, the German DIN and the American Voluntary Standards as reference documents.

P. 162 Further variation is the splitting of the casing at the driving side so that the bearing bracket, shaft and impeller can be removed leaving the volute casing and the inlet and outlet pipes undisturbed but in this arrangement it is essential that the casing should carry feet to maintain alignment.

In these pumps the radial thrust at small flows is carried by the ball and roller bearings via the shaft which infers that the shaft should be relatively large in diameter eg 1/7 or 1/8 of the impeller diameter.

P. 171 It is therefore important that the thrust bearing of a two stage pump should have adequate margin to cover the possibility of these abnormal thrust conditions.

P. 199 The net vacuum should not exceed 8m with normally aerated water and normal pipe joints.

P. 359 Multi-stage pumps have frequent application on chemical duties. Stainless construction is often essential but it should be appreciated that multistage pumps usually rely upon the lubricating qualities of the pump liquid for the safe operation of the internal bushes and the balance disc.

P. 386 Since impeller passages represent a combination of impeller rotation about its axis and toroidal rotation of liquid through a quadrant it follows that the impeller is a gear wheel and should be produced as a gear wheel.

P. 391 It is therefore the function of the inlet of the pump to feed the impeller with an adequate supply of liquid without risk of vaporisation to this end, the inlet vanes should be designed to give minimum shock at the required duty.

P. 403 It should be noted that if the term "type quantity" is adopted the present values of type numbers should be squared to give the true quantity ratios since type number is a function of the square root of the quantity.

P. 408 It should be pointed out, however, that a pump of the type 6 will not necessarily cost more than one in, say, type 4, as a manufacturer having standardized on the more expensive material may be able to sell it as a standard product at a lower price than if he brought through a single pump in a less costly material.

MACHINE DESIGN, CLEVELAND, V. 54, N. 7, APR. 1982, 235 P.

WILL

P. 8 Aluminum wheels and other products will be die cast free of pores, reports Cast Forge Co., a unit of Kelsey - Hayes Co.

P. 12 The recently announced FCC decision to allow AM stereo broadcasting to begin immediately will add new life to the AM market and AM stereo may become the favored program source for the car market, according to National Semiconductor Corp.

This will result from the longer range of AM stereo and freedom from multipath noise problems.

The company reports its LM1981 AM stereo decoder - the industry's first is now available in production quantities and will allow receiver manufacturers to take quick advantage of the

March 4, 1982 FCC decision.

While the FCC has allowed for broadcast all five systems that were under evaluation, National believes that the market will rapidly converge on a single system, and that the practicality of AM stereo decoding in the receiver is the key to market acceptance.

p, 22 OPAL - MINING TOWNSHIP of White Cliffs will get all its electricity from a solar power station.

As a bonus, the township, consisting of 12 houses and a hospital, will have street lighting for the first time.

p, 46 The physical setting of the interview will have much to do with whether it will succeed or fail.

The idea is to put the candidate at ease, not to see how he will perform under tense circumstances.

Number of positions and the length of time each was held will indicate the candidate's work stability.

Nature of the candidate's work experience in terms of duties performed will provide a basis for judging his suitability for the position at hand.

Special schooling, hobbies, or awards might indicate whether the prospective hiree's interests are in consonance or at odds with what the job will require.

SHOULD

p, 46 While the encounter should not be regimental, the manager should determine the physical setting for the interview, outline the topics to be covered, and familiarize himself with the candidate's resume.

The time picked for the interview should be convenient for both the candidate and the interviewer.

Special consideration should be given to the possibility that the candidate will have to work around his present work schedule.

The interview should take place on the interviewer's home ground, rather than at some neutral site.

The room chosen for the interview should be spacious and comfortable.

Light, heat and ventilation should be adequate.

Furniture should be functional and tastefully arranged.

Smoking should be permitted.

There should be freedom from distractions and interruptions.

The general tenor of the interview should be casual and unhurried.

Before beginning the interview, the interviewer should carefully outline the topics to be covered and the sequence in which they should be dealt with.

He should list the most important facts about the position that should be communicated to the candidate, and determine the most important information he should get from the candidate.

In evaluating a candidate's resume, special attention should be paid to the following points:

The interviewer should make the call himself, rather than delegating it to someone else.

MACHINE DESIGN, CLEVELAND, V. 54, N. 3, APR. 1982, 258 P.

WILL

P. 30 When two metals are connected electrically in a corrosive environment, the least noble of the two will corrode faster.

P. 30 The preferred method is to stamp or roll a series of serrations or dimples in one of the sheets to be joined, to provide a number of projections at which welding will be localized.

P. 100 Even here, there is the danger that these sources may not be aware of the many compromises a company must make internally among production, engineering, purchasing, and marketing considerations to produce a product that will sell at a profit.

P. 223 Diamond is used for engineering purposes primarily because it is the hardest naturally occurring material, although synthetic boron nitride, or "borazon", will scratch diamond and has similar mechanical properties.

P. 232 When the UV exposure is made through a mask, the pattern of the mask is reproduced in the glass. The image developed is permanent and will not fade, as would a similar image in a photochromic glass.

WOULD

P. 20 Exceptions are nitrided parts, which have better wear resistance than would be expected from the carbon content alone.

P. 25 For example, 400 series and precipitation hardening stainless steel would be risky below - 80° F.

P. 207 Commercialization of guayule could have a synergistic effect on natural-rubber use; it would remove the reluctance to switch from a synthetic to a readily available natural rubber.

SHOULD

P. 100 For best results, the design should be tested under real-life conditions involving the temperatures, loading, and environment of the anticipated service.

The test part should be molded in the shape and from the material to be used in production.

MACHINE DESIGN, CLEVELAND, V. 54, N. 9, APR. 1982, 200 P.

WILL

P. 2 Information gained from the characterizers will help predict the behavior of the reactor during plant operation and will aid in designing and evaluating future experiments.

ARI plans to identify new uses for antimony chemicals and alloys. It will survey users and potential users concerning their specific needs and will analyze how antimony research can respond to these needs.

P. 8 Procedures will now change for more severe flight simulations - greater aircraft weights, more turbulence, and higher utilization rates for the 85.000 to 105.000-hours part of the testing.

Following another intense inspection at the 105.000-hour mark, residual strength and contingency tests will be conducted.

Then the entire test article will be dismantled for a thorough

post-test analysis.

Ford estimates that first-year sales will reach 6,000 units and could grow to 10,000 year by the end of 1983.

P. 63 If you are like most engineers-turned-managers, your first management position will be taken on without adequate preparation.

You will likely have picked up some general knowledge about managing from your immediate supervisor or through special study courses, but you probably will not have learned how to translate this knowledge into action.

This requires knowing what must be done during your first days on the job and identifying the tasks and skills that will help you succeed over the long haul.

WOULD

P. 8 A full-size magnet for a fusion reactor might be about 50 ft long and 10 ft in diameter, but would produce a magnetic field only slightly stronger than that of the Argonne device.

P. 22 When the petroleum crisis struck in the mid-1970s, Ford Motor Co., embarked on an ambitious program to develop vehicles that would run on alternative fuels.

P. 26 Feaheny says that the cost of a mass-produced natural-gas engine would be about the same as a gasoline engine.

SHOULD

P. 63 Your current manager, or the former manager of your department, if you have acquired an already existing group, should be in a position to tell you what major tasks the department is expected to accomplish in the next six to twelve months.

MACHINE DESIGN, CLEVELAND, v. 54, n. 10, MAY 1982, 198 P.

WILL

P. 2 A four-year NSF grant of \$ 700,400 will be matched in the first year alone by contributions totaling ... \$ 750,000 from the firms now involved in the project.

Industrial applications of robotics will be the primary subject pursued at the center.

These enhancements will include coupling the acoustic elements to both structural and fluid elements.

P. 8 The Intelsat VI spacecraft will be the most massive commercial satellites yet built.

They will be 39 ft tall and 12 ft in diameter.

Their solar panels will generate 2.2 KW of electric power and each of the 4,000-lb satellites will provide ten years of communications service.

Designed for launch from the space shuttle or by the European Ariane rocket, Intelsat VI spacecraft will be delivered starting in late 1985.

P. 14 A torque as low as 1 dyne-cm can cause a gyro drift rate that will result in failure.

P. 64 Harvester emphasize that significant use of composites will require unusually close coordination of product and materials engineering, structural analysis, test, and manufacturing, because the properties of composites and metals differ so widely.

P. 34 All of these problems will be resolved to a large extent if current research and development on flat-panel LED displays work out as planned.

WOULD

P. 60 Such controls - used as standard equipment - would also open the way for improved vehicle instrumentation and diagnostics.

P. 196 There is still a lot of "specialty" engineering done in which the above drawing would be more truth than fiction.

SHOULD

P. 2 Known as Comic (for COMPLEX acoustic pressure analysis), the finite - element computer program should be useful to companies concerned with predicting or decreasing sound levels in their products.

MACHINE DESIGN, CLEVELAND, v. 54, n. 11, MAY 1982, 323 p.

WILL

P. 10 Two class-B insulated motors having 1.15 and 1.25 service factors, respectively, will therefore each be rated for a 90°C rise.

But the second motor will have to be larger than the first in order to dissipate the additional heat it generates at 125% load.

P. 26 Only then will he be able to propose an adequate servosystem and choose a motor type.

P. 39 Any mechanical damper will load the motor and increase step time.

By timing the reversing pulse so that the rotor has zero velocity at position B, the rotor will be locked at position B.

If the next-to-last step pulse is adjusted for exactly one step of overshoot, and the last step pulse is introduced at precisely that time at which the previous one-step overshoot occurs, the rotor will be locked into the final step position without oscillation.

P. 82 A high inertial load will try to back-drive the rotor through the gearhead after forward driving power is removed.

P. 111 For example, 12-bit processors will not work directly with ROM as do conventional micros.

P. 127 Neither electrical power shortages nor outages will affect operation of Model 400 minicomputer system.

P. 165 If the SCS is turned on with the cathode gate signal like a conventional SCR, a sufficiently positive signal on the anode gate will turn the SCS off.

P. 204 However, the cold or reference junction will seldom be at this temperature, and the difference must be compensated for in the instrument.

P. 230 Under the same circumstances the last digit of a

DPM display will merely show a blur, obscuring both rate and even direction of change.

P. 262 A method of wire entry must be provided so that all wire will be contained in the contact area.

P. 267 However, it will not withstand many insertion and withdrawal cycles.

P. 296 For example, some meters will store about 100 readings, with the reading rate controllable from the front panel.

That is, any DMM reading will be accurate to within the percent of reading accuracy (usually on the order of $\pm 0,005\%$) regardless of on what scale the reading appears.

WOULD

P. 6 And conductive polymer batteries would have virtually no maintenance requirements - the electrolyte, whether wet or dry, produces no fumes and would not need refilling in a manufactured product.

P. 39. If the flat stator were rolled up along its width the result would be a round - rod linear motor.

P. 87 For motors with a service factor of 1, or with a temperature rise greater than 40°C without service-factor rating, use a heater with a rating one size smaller than would normally be selected.

P. 230 Reliability and Error: Compared with the complexity of DPMS, it would seem that uncomplicated moving-coil meters have a clear edge in reliability.

P. 240 Thus, power supplies should not be connected in series if the resulting output would exceed 300V unless the power supply manufacturer approves that application.

This protection should be obtained if load failure due to power supply over voltage would be unacceptable costly.

P. 296 Here the DMM would be connected across a forward - biased diode and would read the diode voltage, which varies with temperature change.

SHOULD

P. 18 If speed range is much over 3 : 1, armature voltage control should be considered for at least part of the range.

However, below about 60% of base speed, the motor should be derated or used for only short periods.

Speed variation with torque: Applications requiring constant speed at all torque demands should use a shunt-wound motor.

P. 105 System complexity and required versatility determines where each of these controllers should be used.

P. 151 A relay should be used as close as possible at its rated load to avoid contact deterioration.

P. 210 Ideally such transducers should also eliminate drift and non-return-to-zero problems normally associated with bonded and unbonded strain - gage pressure transducers; especially at higher temperatures.

P. 226 A single common current - limiting resistor should not be used for a group of LEDs.

P. 240 If low or high voltage is expected, that fact should be included in specifications for a power supply.

Thus, if a power supply is intended for application to a power system rated 220V, the power supply should be designed specifically for that voltage.

Thus, power supply specifications should be checked carefully if 50 or 400-HZ operation is contemplated.

If an application requires a power supply having adjustable output voltage, the minimum adjustment acceptable for the application should be chosen.

P. 296 If the application calls for measuring complex waveforms or sine waves with a high content of third-harmonic distortion, the choice should be true rms.

MACHINE DESIGN, CLEVELAND, V. 54, N. 12, MAY 1982, 136 P.

WILL

P. 2 One, which will test and verify the technologies needed to bring commercial solar power plants into being before the end of this century.

P. 6 They know that, by contrast, choosing the optimal

product will save you money.

P. 20 The largest-ever Electro takes place in Boston next week, May 25 - 27. There will be some 800 exhibit-booth spaces set up in the Hynes Veterans Auditorium and the adjacent Sheraton Boston Hotel.

In addition, the Commonwealth Pier on the waterfront will provide about 400 spaces.

Technical sessions will be held at the Sheraton and the Cheri 3 Theaters across the street.

The engineers will participate in the professional program and view exhibit booths manned by more than 600 companies.

Regular shuttle-bus service will connect Commonwealth Pier and the Hynes-Sheraton-Cheri Complex at Prudential Square.

Buses will link Commonwealth Pier with suburban Natick and Burlington along Route 128.

Electro exhibits at Hynes and the Sheraton-Boston will be grouped in four categories, each color coded for easy identification.

Robotics technology and its impact - existing and potential - on the electronics industry will be the subject of the Electro 182 Special Exhibit at Commonwealth Pier.

Robot manufactures and makers of robotic - related products will display in a specially designated site at the rear of the Pier.

Consulting organizations dealing with robotics applications will be on hand to answer questions and show videotapes of robotic activities.

A series of scientific and technological motion pictures will be shown daily at the Electro Film Theaters located at Commonwealth Pier and the Sheraton-Boston.

The films will be shown twice daily, and the program is the same at both locations.

An estimated 43,000 electronic professionals will prowl the aisles of Electro/82 and attend the technical conferences.

P. 25 The high practical impact strength of Celcon acetal copolymer ensures that the Kenwood Chef mixing unit will stand up to long-term kitchen service while providing practicality and beauty in the kitchen.

Our technical service group, with its extensive experience in application development and well-equipped laboratories will be pleased to assist in your future projects.

P. 28 The TLP, which is expected to lead the offshore

industry into deep water to find reserves inaccessible to current rigs (2,000 ft deep, vs 1,000 ft), will have a deck fixed to a buoyant hull of tubular steel columns and connecting horizontal pontoons.

Sixteen tension legs will link the hull's corners to foundations on the sea bed.

The legs will be kept tense by the hull's upward thrust and the platform will remain stable with motion barely perceptible in most sea conditions.

P. 32 Designed by Hitachi Zosen for India, the segments will be towed to a site of Bombay before assembly.

The completed production module will treat 180,000 barrels of oil daily, separating it into petroleum and gas to be pumped through pipelines to land facilities.

The accommodations module will support a crew of 124 persons.

P. 48 It's a simple design concept based on the Johansson Block Principle (i. e., two finely machined flat surfaces pressed together will stay together due to atmospheric pressure).

P. 66 First to benefit from this technology will be robotics and hydraulic servo equipment, as well as aircraft engines, other non-automotive engines, and pumps of all kinds.

Sensors and associated digital controls will not bring new types of control.

Instead, cheaper sensors will permit appliances to incorporate new functions without costing more.

P. 106 The analog computers that the new minis will replace are 15 years old and were used in space missions as far back as the Gemini project.

P. 109 The simulators are being readied to help simulate new space - shuttle hardware that will be used once the space shuttle Columbia has been permanently retired after its fifth mission.

WOULD

P. 2 The first phase would be operational two years after the boyer gives the go-ahead, and the project would be completed the following year.

P. 100 If an anode substrate for a multicharacter display (5 x 7 dot matrix) is processed via thick-film printing

technology, more than 20 printing processes would be required for the three-layer wiring. Cost would be excessive.

P. 109 Analog machines were used initially because they were the only kind of computers that would meet speed requirements.

SHOULD

P. 4 In doing this, he should take into account direct and indirect benefits, both short and long term.

P. 16 In this respect, it should be mentioned that later developments, proved the necessity for a means of positive drive and positive axial retention for milling cutters for the heavier duty machine.

P. 36 If you're not getting this kind of choice from your present supplier you should be talking to Thomas.

P. 104 Trimmer seal requirements should be considered if the circuit board is to be washed or is expected to operate in high humidity.

MACHINE SHOP AND METALWORKING ECONOMICS, LONDON, SUPPLEMENT,
Nov. 1969, 20 p.

WILL

P. 1 Most of the articles will have left the average production engineer has been regaled with a variety of articles on computer-assisted tape preparation.

Most of the articles will have left the average production engineer with a feeling that it may be suitable for the computer specialists, but does it really help to produce the goods more efficiently and cheaply?

P. 4 Different organisations will charge at different rates depending on the system, the computer used and the service offered, though the net result will generally be that one gets what one pays for.

Some service bureaux will quote rates per computer minute or hour, which makes it very difficult to estimate the total cost before submitting the job.

P. 4 For the majority of NC machine tool users contemplating computer assisted tape preparation, the best value will be obtained from general purpose program systems, especially those having the backing of experienced development groups.

With labour costs continually rising and a dearth of experienced part-programmers, it is inevitable that preparation of tapes for all but the very simple application, will ultimately be handled by computer.

At Notsa Engineering, the use of N.C. forms part of a policy which we like to think will stand us in good stead for the future, and before describing some of our experiences in the N.C. field it will not be out of order to sketch an outline of this broader policy so that the reader will be able to view our concept of numerical control in its true context.

P. 8 To sum up, we at Notsa Engineering believe that N.C. holds the key to the future success of the company, and we can envisage the day when virtually all our plant will be of this type.

We believe that N.C. will not realise its full potential without the right approach to a host of other considerations, such as shop floor conditions and employee relations.

P. 16 When more than one axis is moving in traverse mode the slowest axis will limit the maximum rates of other five axes.

WOULD

P. 1 It is however, true that it would be economical for many organisations who do not employ it at present.

SHOULD

P. 16 In this respect, it should be mentioned that later developments proved the necessity for a means of positive drive and positive axial retention for milling cutters for the heavier duty machine.

WILL

P. 10 Inspection of the component is usually the yardstick by which the performance and accuracy of the machine is measured; as long as the performance of the machine is such that it will continually produce components to a dimensional accuracy within permitted tolerance, in an acceptable floor-to-floor time and without undue downtime of the machine, the user normally considers that his needs have been met.

P. 75 Machinery which the Act requires to be fenced will not be held to be "as safe as it would be if securely fenced", even if it is easily accessible.

P. 83 Working at the Slough headquarters of the Group Mr. Barker will be looking into the further development of purely electronic devices in the range of micro switches, timers and other devices.

SHALL

P. 75 Section 16, which deals with construction and maintenance of fencing, states that all fencing or other safeguards provided in pursuance of the foregoing provisions of this part of this Act shall be of substantial construction and constantly maintained and kept in position while the parts required to be fenced or safeguarded are in motion or use, except when any such parts are necessarily exposed for examination, and for any lubrication or adjustment shown by the examination to be immediately necessary, and all such conditions as may be specified in regulations made by the Minister are complied with.

SHOULD

p. 6 It might be of interest to present a comprehensive picture of the process of a cost survey, and the sequence in which it should be carried out.

The investigation should be split up into three main functions.

P. 22 It is important that the grinding wheels do not become loaded if a high surface finish is to be maintained, and it is recommended, therefore, that the wheels should be re-dressed after each re-grind.

MACHINE SHOP AND METALWORKING ECONOMICS, LONDON, v. 30, n. 12,
DEC. 1969, 70 p.

WILL

P. 13 For point-to-point work the post-processors may be produced in two to four-man-months, by a competent post-processor programmer, an investment that may be recovered many times over in the savings resulting from the improved reliability, reduced scrap and faster programming, that the computer will provide.

Most firms will be happy with a general purpose processor.

P. 21 To any would-be user of N.C. the following advice, bought by bitter experience will not be inappropriate and will save a lot of money.

(5) Seek to eliminate your planning and programming problems at an early stage, because once you have one N.C. machine operating profitably in the right environment, you will undoubtedly progress to many more.

P. 40 (v) Subject to a sufficient demand the new metric sizes will be made or cut as required until the replacement of plant and machinery allows a complete change to metric.

Imperial sizes will then cease to be produced.

At the present time the equipment is being manufactured in the U.S.A., but negotiations are in progress which it is hoped will lead to manufacture in the U.K. in the near future.

Formerly a member of the winget group, Magco Ltd. is now part of the Babcock & Wilcox Ltd. group and in future will be known as Magco - A Division of Babcock - Moxey Ltd.

P. 52 It is claimed the truck can be easily handled in confined spaces, and it will roll over quickly and easily to dump the contents.

WOULD

P. 12 A greater understanding of the machines, of the possible long term requirements and the cost in spares of maintaining so many systems would have led them to use the same make of control system throughout their N.C. machine shop.

p. 40 (b) require the cutting of existing sizes. This would also lower the effective output and entail a cutting cost, thus making an even greater increase in cost.

p. 68 The committee preparing this revision appreciated that saws would continue to be manufactured in imperial units for some time, and therefore the appropriate details have been given in an appendix.

SHOULD

p. 21 Contours should be defined mathematically in X - Y co-ordinate form.

If some dimensions are suspect and may, after trial, need to be modified, or may become subject to variation to produce a new type of the same component, the parts programmed should be given an indication on the drawing that this may be so.

The designers should also be aware that on an N.C. lathe the number of tools available may be restricted and he should make every possible attempt to standardise fillet radii and other features (chamfers, undercuts, etc.) which are produced directly as a result of the geometry of the tool and not from explicit part program instructions, e.g., internal fillets at the end of a cut.

Designers should seek to exploit the N.C. machines, fast cutting capability in the lighter alloys, free cutting steels and plastics, by making parts from the solid in what may be a more expensive material than the previous forging or casting, particularly if the quantities required are small.

Should the abrasive-jet stream be directed accidentally against the operator's hand, no harm is done.

p. 69 A feature of this standard from the user's point of view is the provision of a check list showing the information which should be given with an enquiry or order.

The recommendations cover the coating material, methods of surface preparation, how the coating should be applied, sealing of the coating and various methods of surface finishing.

MACHINERY LLOYD AND ELECTRICAL ENGINEERING, EPSOM, v. 37, N. 6,
MAR. 1965, 112 P.

WILL

p. 25 It is the dissemination of this sort of practical information by industrialists of this stature that will do most to awaken the interest of policy making management.

It is estimated that in the United States the use by engineering firms of synthetic resins reinforced with fibres of glass, asbestos, cotton and other materials will reach a total of 340 million pounds this year, some 14 million pounds more than in 1964.

p. 33 Consequently Muirhead & Co. Ltd. is contemplating the setting up of a piece of electronic equipment within the clean room which will continuously monitor and record particle sizes.

WOULD

p. 25 Another example was a die cast perambulator wheel, the die for which was produced on N/C machines in 12 hours but would have been almost impossible to produce otherwise.

p. 33 All the precautions which have been taken would be completely nullified if the components passed into the room for assembly were not clean.

p. 37 In a mechanical shield it would create difficulties with the spoil removal equipment.

SHOULD

p. 37 This has the advantage that should any obstacle be encountered, the wheel can be "reversed out", and it is also useful to counteract or prevent the machine from sliding round sideways.

MECHANICAL ENGINEERING, NEW YORK, v. 99, n. 7, JULY 1977, 127 p.

WILL

p. 34 By incorporating the superior gas recombination design provision of the nickel - hydrogen system, the new nickel - cadmium cell will permit utilization of high stability

inorganic separator materials; will recombine both oxygen and hydrogen gas on overcharge and will operate with high levels of electrolyte.

P. 38 Small lead angles and low friction will provide smooth assembly.

P. 46 The waters of the seas constitute the largest powerhouse on earth, one that in the future will require the employment of thousands of engineers.

Over the next 10 to 40 yr, thousands of engineers, among tens of thousands of other workers, will be employed in the offshore petroleum industry.

There is and will be great opportunity for invention and exercise of professional skill.

The loadings which the sea will apply to man-made devices launched into and expected to live in it are quite different from the loadings found on terrestrial systems.

This can probably be done best by going to sea; at a minimum it will be done at the coastline where sea meets land.

P. 56 Before it can be put into practice, however, the federal government must see the policy and criteria by which such wastes will be isolated and stored, and then demonstrate a fullscale disposal facility.

Most probably, the liquid waste will be solidified in two steps - calcination and vitrification.

Under current plants, the canisters eventually will be placed in deep underground geologic formations that have been stable for millions of years and that are remote from local water tables.

P. 62 The new metro system will use modern rail technology to provide safe, rapid transportation at the lowest possible cost.

The transit system will use an automatic train-control system to control train movements.

Supervision of the system will be accomplished in a control center where a digital computer will monitor all train operations and direct the system to provide the best possible service.

Design of the system is such that a failure of the control center will not disable the transit system.

If the control center fails, trains can continue to operate safely with localized control, although the operations will not be optimized.

The Battelle safety analysis will be based upon knowledge of the

metro automatic train-control system, its specifications, and accepted transit industry practices, says Harvey Hunter, leader of the research program.

During the study, researchers will perform a detailed engineering analysis of the automatic train-control system and the braking system.

Techniques that will be applied by Battelle specialists are those they have used in similar studies of other systems including the metro in São Paulo, Brazil, which opened in 1975.

During the 18-month study, Battelle researchers will analyze the train control and braking systems, first from the standpoint of the safety of their functional concepts, and then with regard to the implementation of those concepts.

P. 114 The 90 deg sweeps will help prevent clogging of ball bearings, foods, powders, cups, cans, slurries and many other products.

WOULD

P. 30 Wind and solar power sources - now receiving serious attention - will also need means for storing large quantities of electrical energy.

P. 34 Although all cells handled greater amounts of electrolyte than would normally be tolerated in a conventional cell, an even larger quantity could be accommodated in the teflon film design.

P. 38 If the return angle is larger than 90 deg. minus the friction angle, θ the snap fit would not snap out; see explanation following Eq. (4).

Pull out disassembly would cause shear failure around the interference or tensile fracture along the length of the cantilever, Fig. 3.

Initially, the mold would be made with the interference on the low side.

Sample parts would be moulded from this semifinal mold.

If everything behaves as expected, the snap-in and snap-out forces would be slightly less than the desired ones.

A final cut in the mold would increase the amount of interference and perfect the snap fit.

The presence of dirt or oil would, of course, affect the friction coefficient.

P. 46 The need is vital for the engineer working in this field to have a basic understanding of marine science and in particular to understand how his creation could or would not contribute to degradation of the marine environment.

P. 56 Through such a solidification process, the total waste expected to accumulate by the year 2000 would only require a relatively small amount of space.

To temporarily store this amount until it is solidified for ultimate disposal would require only 10 tanks 100 ft in dia and 50 ft deep (30 x 15m).

These temporary storage tanks, to be located at commercial reprocessing plants, would have a double containment consisting of inner and outer shells made of special stainless steel.

They would be placed underground, inside reinforced concrete vaults with sumps instrumented to detect leaks immediately.

The solidification process expected to be used would reduce the liquid waste volume by about eight times.

The first step would be to produce a calcine product by subjecting the liquid waste to temperatures in the 300 - 900° C (600 - 1700° F) range.

SHOULD

P. 22 However, a useful conservation program coupled with the demonstrated price elasticity for all energy sources should cause some slowdown in energy use.

P. 34 With only minimal further development, a practical and advanced sealed nickel - cadmium cell construction should be possible which offers both greater reliability and a significant improvement in cycle life capability over existing electrochemical storage batteries.

P. 38 The interference should be considered as a percentage of the radius.

P. 46 It is toward the gentle exploitation of those resources that thousands of young engineers should be headed, and their education should be that of all the basic engineering technologies, on top of which an ocean engineering superstructure should be created in graduate school.

P. 96 The authors feel that membrane theory gives very good results and should be used in the future to analyze any relatively thin cups.

MECHANICAL ENGINEERING, NEW YORK, v. 99, n. 11, Nov. 1977,
160 p.

WILL

P. 19 The unfortunate and dismal fact is that, of the 2800 new associated members, over half will drop out after seven years in ASME.

This means, I believe, more activities and programs directed toward the professional development of young engineers, programs that will make them feel that the society is responding to the perennial query posed by the younger members.

We must move the Society closer to the kind of organization so dynamic, so responsive, and so visible as to make certain that every senior student member will want to bang on the ASME door to be let in to ensure his or her own technical and professional life.

P. 23 There is presently too much assumption that undiscovered uranium resources will be available for our use.

The real goal in flue gas cleanup is to design processes which will assure acceptable levels of reliability in commercial service, without transfer of pollution from one location to others.

Unfortunately, coal cleaning technology presently available will not remove all the pollutants, so that it cannot be considered as a substitute for flue gas cleanup in steam generating plants.

P. 27 This value applied to the 12-yr time lapse to 1985 gives a 1988 R/P of only 5.147 yr, which says, in essence, that our domestic oil supply will be essentially exhausted by 1990.

Even if the 2 - percent growth rate is achieved, however, the indicated $+ 18.0 \times 10^9$ bbl reserve at the end of 1985 will represent less than 3 yr supply, relative to our probable minimum demand of $+ 8.0 \times 10^9$ bbl in 1985.

P. 31 Recently there has been a great increase in the cost of oil - but with each dollar added to the price of crude oil, other and more fuels will come into the market to compete economically, and these fuels will come from solids.

Larger amounts will be coming from cattle feed lots in Colorado.

But the gas from all of the cows available will be only a fraction of that needed.

There will be not return to the heating values for distribution, in the American system having hundreds of thousands of miles of pipelines |from 1 in. to 48 in. in dia (2.5 - 122cm)| and a value of at least \$ 50,000 million.

p. 35 They promise a drastic reduction of final costs of syncrude if underground partial combustion and heating brings the oil alone from the ground, either as liquid or as vapor but the recovery of syncrude will be lower.

Analyses of all of the proposed processes indicate that oil, gas, sulfur, sodium bicarbonate, and alumina will be produced in large amounts at costs which as yet cannot be estimated well; but they will probably be competitive with world markets when these plants go on stream capital costs will be very substantial, and a large part of the final costs of the resulting fluid fuels.

Engineers know they will be able to take at least two or three times as much oil from the thick, extremely viscous bitumen present in these tar sands as there is beneath all of the desert sands and other terrain of the middle East.

The next plant will be bigger.

It will mine about 10,000 tons of tar sands per hour, dispose of about 15,000 tons of spent sand and water as tailings per hour in a 9 - Sq - mi (23 - km²) dump, and produce 125,000 bbl of syncrude a day, at a cost competitive with crude oil.

In the present 5 - percent/yr increase in energy use continues for 200 yr, as much energy will be used annually as is received from the sun.

Recent surveys indicate that, in the near future, there will be needed in the U.S. alone to build plants for making and converting energy and supplying their materials, a total of over \$ 1 trillion, of which half may be required to build plants for fluid fuels from solids.

This huge expenditure will give rise to, among other problems, shortages of various kinds, including:

(1) After subtracting such a large amount from the gross national product over the years, there will be certainly much less left for the labor and materials which presently go to supply the luxuries for life - some of which have grown to be necessities;

If all salaries of nonengineers are included along with other costs of a general overhead, as is general practice in estimating engineering costs, to give a current cost overall of about \$ 50,000/man-yr, 1 million man-yr of effort will be required.

It is clear, however, that heavy doses of engineering imagination and innovation will be required to replace the fluid

fuels which, up to now, have come so easily by drilling holes in the ground.

p. 39 For fuel costs that increase linearly so that the final fuel cost is about twice the initial value, the cash flow analysis will yield somewhat smaller optimum systems than the equation based on average future fuel costs.

These cost assumptions are in part arbitrary; we are not certain what the relative costs of selective surface and covers will be.

With the collector thermal performance parameters assumed here, collector 2 will always show a higher savings than collector 3, since it costs the same as 2.

The differences between type 1 and 2 tend to be large, and between 3 and 4 they tend to be small; if good, durable selective surfaces become available, they will probably pay on one-cover collectors and may pay on two-cover collectors, particularly in areas of high heating loads.

p. 48 At a 70° F to 90° F (21 - 32°C) normal temperature range, the use of an oil or grease having a viscosity of 70 to 100 Saybolt Universal Seconds (SUS) will usually be satisfactory for the average ball bearing type application.

The adherence to proper scheduled regreasing intervals will also ensure that the bearing has a sufficient amount of grease at all times, and will aid in protecting the bearing component parts against any damaging effects from corrosion.

p. 52 Matching of secondary working fluids, temperatures, and turbines will permit higher turbine efficiency and more of the energy in the geothermal fluid can be recovered and converted to electricity with this scheme.

p. 60 Based on preliminary measurements of water flow, over 92 percent of the water injected into one hole will be recovered in the second hole after a month of operation.

Testing will also show whether the initial transfer rate is maintained or falls off with time.

p. 64 The improved sphincter will allow the bladder to fill and be emptied rapidly every 3 or 4 hr, exercising the bladder muscles and reducing risk of infection.

p. 68 The Peruvian reactor, which will be capable of producing radioisotopes for medical and industrial uses, will use Argentine technology and equipment.

Production of uranium concentrate at Planta Malarque, Mendoza, at 4 tons a month in 1976, will be increased to 10 tons a month.

A new plant, at Los Adobes in Chubut Province, will also be producing 5 tons a month.

Officials also report that Argentine technicians have recently produced two fuel elements for use in the Atucha I Nuclear Center and will make 23 more elements by the end of 1978.

Nippon Steel will also lay 64 km (40 mi) of pipeline connecting the jackets with a storage tanker, for which purpose Nippon Steel's derrick/lay barge Kuroshio-I will be used.

p. 72 The present state of the art strongly suggests that the switch from non-renewable resources to renewable resources will not occur for many years because of the large difference in the price of production.

Tests and screening procedures may indeed point out those who will rise to the top of the company.

p. 76 The facility, the first of its kind in the U. S., will provide equipment and funds to advance the art of fabricating electronic devices or research structures with features comparable in size to the distance spanned by one thousand atoms.

The facility will provide a focus for workers in the field of sub-micron fabrication technology at Cornell and in other university, government, and industrial institutions, and will serve as a training laboratory for engineers and scientists in this important area of research and development.

The sophisticated equipment will be used to conduct fundamental research on problems in physics and materials that affect or limit the application of sub-micron technology, and to construct new devices for application in such areas as integrated circuits, eletro-optics, microwaves, magnetics, and accoustics.

Ultimately, these devices will be used to improve products like microwave integrated circuits, eletro-optical/components and computers, and to support progress in other fields such as biological sciences.

Although the new facility will be an affiliate of the School of Electrical Engineering at Cornell, the research programs will involve broad participation by faculty members, graduate students, and research personnel in the Department of Applied and Engineering Physics, Chemical Engineering, Chemistry, Materials Science and Engineering, and Physics, as well as Electrical Engineering, and will be available to workers from other institutions.

p. 83 Of all forms of energy, electricity, it appears, will achieve the greatest rate of growth over the next quarter century.

And, extrapolating to the year 2005, installed, capacity will grow to 1,500,000 MW.

According to David Israel, technical assistant to the

administrator of ERDA, who delivered the Keynote address to the Joint Power Generation Conference, held aboard the Queen Mary Hotel, at Long Beach, Calif., Sept. 18-21, one fourth to one third of this new capacity will be nuclear.

This is an early form and it's too early to predict what will come of the proposal.

What the general energy outlook reduces to is that the problem to 1985 seems solvable and will largely depend on the greater use of coal.

For the next 10 yr, then, the conventional fossil fuel processes will carry the major energy burden, modified by environmental strictures as incorporated within the amendments to the Clean Air Act, recently passed by Congress.

P. 87 They are trying to devise an action plan which address and explore possible solutions to problems engineers often face in the areas of pensions, patent rights, continuing education and professional development, employment guidelines, engineering manpower supply and demand, engineering salaries, affirmative action and registration.

This action plan will help direct policy - where we should act - and also suggest ways in which our goals might be implemented.

With such a policy and plan in effect, it is hoped that the Society will be able to represent you more directly and expeditiously.

Your response to it will help NMIC determine its priorities and the best plan for action.

P. 107 It is felt that including the stiffness coefficient will have an appreciable effect on the results of the piping analysis and will give a realistic prediction of the end forces at the nozzle connection.

In order to better relate the Quality Assurance (Q.A.) and Quality Control (Q.C.) requirements to the fabrication of ASME Pressure Vessels, the paper will include each phase of fabrication from procurement through special processes and in-process inspections to final testing and acceptance.

P. 111 Although few Americans will flock to pedal power for milling flour, running a jigsaw, or powering a television (through a dynamo), many people in the developing countries can greatly benefit from the improvements in muscle-power technology described in Pedal Power.

WOULD

p. 23 This would require a drastic change in coal buying philosophy, which has traditionally demanded delivery of the lowest cost per 10^6 Btu from the producer.

p. 27 Some technology is available for liquefaction; possibly that which would produce methanol (produced via gasification followed by synthesis) is the most developed.

On this basis, the proved reserves at the end of 1985 would be 18.487×10^9 bbl.

p. 31 Projects have been studied involving vast energy farms that would grow carbohydrates solely for their conversion to fluid fuels.

Thus the logical first production on a magnificent scale would be of chemicals now coming from fossil hydrocarbons for use as feed stocks.

p. 39 The reader can, for his locality, estimate what his average fuel costs may be over the amortization period, and with an estimate of current system cost, he or she can see if the anticipated savings would make an investment in solar heating equipment worthwhile.

p. 72 In general, says Lipinsky, biomass is a poor (high-entropy) energy source; therefore, energy analysis should compare the inputs and outputs with the quality differences in mind.

For example, it would require approximately 60 percent of the corn grain produced in the U.S. annually to provide 1 percent of the U.S. energy requirements in 1976.

p. 76 He could arrange it so that the computer would run for lengths of time proportional to the income of tax customers.

The computer would run for 10 min if income is \$ 10.000 and for 20 min if income is \$ 20.000, for example.

But, as the Dennings pointed out, this is very expensive because everyone - even the taxpayer with the simplest return - would have to pay for the same amount of time as the taxpayer with the most complex return.

SHOULD

p. 19 Ultimately, we should think in terms of 100-percent recruitment at the senior student level and a 100-percent promotion rate to associate membership as the only realistic goals for a professional organization.

P. 23 The U.S. Geological Survey exploration program on uranium and thorium should be expanded and expedited.

P. 56 Inquiries concerning nonexclusive or exclusive license for its commercial development should be addressed to Monte F. Mott, Patent Counsel, NASA Resident Legal Office - J.P. L., 4800 Oak Grove Dr., Pasadena, Calif., 91103.

P. 72 Before you think that you should rush out and test all your potential management people, you might wish to consider one flaw in this beautiful picture.

When assessing people, no test, no certification, no single criterion alone can do the job, nor should it.

MECHANICAL ENGINEERING, NEW YORK, v. 99, N. 12, DEC. 1977,
135 p.

WILL

P. 13 It will prove useful to anyone concerned with remote control and transmission of power at odd angles, around corners, or to hard-to-reach places-in short, whenever a section of flexible shaft is the easiest way to solve the problem.

P. 20 Some examples from each of the sections will serve to illustrate the content of the report in more detail and convey the wide range of subject matter covered.

P. 24 The resultant fuel produces only a moderate temperature steam which will be used to generate electricity, though some say that the proper use for such steam is in industrial processes.

P. 28 The town will not have to assume any risk, while they will resolve a long-standing over disposal of their solid waste.

Moreover, allowing HRRC to run operations assures that the required technological expertise will be available and that operating efficiency will be high.

Hempstead's only obligations will be to supply contracted amounts of waste.

P. 36 The use of heat flingers or cooling wheels and disks coupled with the high nickel-chrome heat-resisting shafts will also effectively reduce the heat conducted to the bearings.

For extreme high-temperature applications, the adaptation of water-cooled housings will further permit significantly cooler bearing operating temperatures.

These steps will undoubtedly incur higher initial installation costs, but, over the long haul, will reap dividends by reducing lubrication problems and maintenance difficulties often encountered with high-temperature bearing applications.

There are petroleum-type greases and oils available which will operate satisfactorily for temperatures up to 250° F (121° C) continuous, or 275° F (135° C) on an intermittent basis.

P. 40 The optimum amount will vary slightly of course, depending on the external heat load and the actual operating speed range of the bearing.

P. 60 At many installation sites the decision for the collector's location will be influenced by the presence of shadow-creating objects, such as neighboring buildings, trees, hills, or other obstacles.

Visual inspection of candidate collector locations will not always be sufficient to ensure that the optimal location has been found, since the shadow's position varies as a function of both calendar date and hour.

When properly configured and aligned it will track the sun's diurnal path for any time of the year.

Any object sighted through the tube will create a shadow at the location where the instrument is placed.

After the operator has completed a scare, he simply indexes the inclination angle setting to a new value, thus changing the diurnal sun path which the sight tube will track.

When the survey has been completed, the operator will know exactly when the location will be in the shade.

To evaluate the system an initial installation of the gasifier in the U.S. is currently under way at the University of Minnesota in Duluth, where a unit will fuel the 30-building campus steam-heating plant, which is presently using natural gas and oil.

P. 72 Another session on the same subject will bring together managers from military, industrial, and commercial organizations.

These speakers will discuss the impacts of the assurance technologies on their programs, describe associated problems and, deficiencies from their perspectives and suggest methods for improving the interplay between the manager and the assurance community.

Special attention will be given to actual experiences in the use

of various techniques, including life cycle cost, reliability improvement warranties, and product liability.

The technical methodology behind reliability and maintainability will also be examined. Five recognizes experts from the faculties of major universities will discuss mathematical concepts and approaches whose application can be of value to the assurance community.

Additional sessions will examine the pressures in the commercial product markets that are requiring greater emphasis on maintainability characteristics.

Here, case histories from the transportation and business machine industries will comment on the efforts required to assure suitable maintainability achievement.

Running parallel with the regular sessions will be tutorial sessions.

Individual sessions will cover basic reliability, reliability applications, and maintainability basics.

In addition, a workshop will be presented on design-to-cost and life cycle cost.

The Symposium will also devote sessions to specific system and product areas.

Included in the program will be sessions on communications systems, consumer products, energy systems, software reliability, safety and cost-effective assurance programs, among others.

The candidate selected to receive the Pi Tau Sigma Gold Medal Award will receive the award and be granted a monetary supplement to cover expenses to and from New York City or the city where ASME holds its Winter Annual Meeting.

P. 91 The application must also state the basis for believing that a summary of the state-of-the-art on the problem posed will make a significant contribution to current or future real problems in fluids - engineering practice.

The Scholar will be designated by Mar. 1, 1978, and the work is to be completed by Sept. 1, 1978.

The presentation will be made at the 1978 Winter Annual Meeting in N. Y. C.

P. 106 Decisions must then be made as to the type and degree of protection that will be utilized for safe operation and control.

The Key consideration is the integration of the design philosophy for control systems with the operating philosophy and caliber of operations personnel that will run the plant.

Now a single valve, Trifecta with its actuator, will in itself perform these three operations.

WOULD

P. 20 The aim was to pinpoint activities or ideas that would serve and foster the following goals:

P. 24 That's how Black Clawson Co. would solve the municipal solid waste problem.

P. 48 An increase in throttle reserve of the turbine control valves or an increase in the boiler storage capacity would reduce the requirements for such control methods.

P. 68 It's not even the way a lawyer would define the practice!

SHOULD

P. 20 It should be understood that these estimates are not based on costing a detailed research and development program; they are order - of - magnitude "estimates".

P. 24 A look at system developers and technological specifics should suggest when or if negative comments are valid.

The petroleum - grade oils used at this temperature range should be of a quality high temperature or highly refined turbine type lubricant.

P. 40 Caution should be exercised in these instances when using oil, since the fluid lubricant may readily be syphoned or forced through the housing low-pressure side seal.

The system should be regulated initially to provide a sufficient oil flow to bring the bearing and oil outlet temperature to no more than 170 - 190° F (75 - 90° C) in order to realize the best life of the lubricant.

P. 91 It should also describe the ideas to be considered and some of the technology to be reviewed.

P. 102 In the design of a rotor system, these factors should be accounted for from a view point of reliability.

TEXTOS DE ENGENHARIA MECÂNICA

- 1 ANDERSON, H.H. Centrifugal pumps. 2. ed. Morden, Trade and Technical Press. 1978. 467 p.
2. MACHINE DESIGN, Cleveland, v. 54, n. 7, Apr. 1982, 235 p.; v. 54, n. 8, Apr. 1982; 258 p.; v. 54, n. 9, Apr. 1982, 200 p.; v. 54, n. 10, May 1982, 198 p.; v. 54, n. 11, May 1982. 323 p.; v. 54, n. 12, May 1982, 186 p.
- 3 MACHINE SHOP AND METALWORKING ECONOMICS, London Supplement, Nov. 1969, 20 p.; v. 30, n. 11, Nov. 1969, 94 p.; v. 30, n. 12, Dec. 1969, 70 p.
- 4 MACHINERY LLOYD AND ELECTRICAL ENGINEERING, Epsom, v. 37, n. 6, Mar. 1965, 112 p.
- 5 MECHANICAL ENGINEERING, New York, v. 99, n. 7, July 1977, 127 p.; v. 99, n. 11, Nov. 1977, 160 p.; v. 99, n. 12, Dec. 1977, 135 p.

TEXTOS DE BOTÂNICA

THE BOTANICAL MAGAZINE, TOKYO, v. 94. n. 1036, DEC. 1981, p. 295

- 383

WILL

p. 333 If these zygosporos are viable and a healthy population of offspring can be produced from them, integrities of these two groups will be collapsed gradually through hybridization.

On the other hand, if these zygosporos are not viable, their sexually reactive potentialities will be unfavourable for both groups because their population sizes are decreased by forming such infertile zygosporos.

WOULD

p. 317 Accordingly, these results indicate that most pollen acceptable ovulus must be fertilized within a few days after the anther's bursting, which would in turn create severe seasonal isolation within and among respective species even though they grow sympatrically.

p. 321 Accordingly, pollen flow must be due to a massive transport means and its range would be restricted to the area near the pollen sources, if these seeds carrying hybrid enzymes were produced by interspecific crossing.

p. 329 In this category, gene flow would be possible between two mating groups if a zygosporos yields a healthy population of offspring.

However, no gene flow would be possible in the other three categories.

SHOULD

p. 355 There remain, however, many information gaps that should be filled by continuing work to advance our understanding of the organization of this complex in terms of evolutionary differentiation.

p. 365 The above observations show that gametophytic apomixis should be postulated for all the known strains of the relevant plants in Shikoku.

THE BOTANICAL MAGAZINE, TOKYO, v. 95, n. 1037, MAR. 1982, p. 1
- 80.

WILL

p. 4 Also it grows laterally by the activity of the marginal meristems, which are kept for a considerably long time, particularly, in the portion that will develop into the corolla lobe.

However, this tube is almost entirely due to a depression of the central portion of the floral meristem, where the carpel primordia will subsequently arise.

SHOULD

p. 7 A tangential view through a connected region and adjacent margins of corolla lobes should reveal that the marginal meristems of lobes are continuous through the meristem of the protuberance during its development.

THE BOTANICAL REVIEW, NEW YORK, v. 47, n. 2, APR - JUNE 1981,
p. 147 - 312

WILL

P. 196 As future research with soil algae leads to a greater awareness of their importance in soil, it might be anticipated that manipulation of populations in agricultural systems of temperate regions will become more widespread with consideration of the potential benefits of soil algae made by scientists in other disciplines.

WOULD

p. 205 It is currently recognized that there are about 20 genera of soil algae included in three or four orders, which, during one or more phases of their life histories, would fit Fries original description.

THE BOTANICAL REVIEW, NEW YORK, v. 47, n. 4, OCT. - DEC. 1981,
p. 421 - 555.

WILL

p. 441 Comparisons of floral development between related species will be aided by knowledge of the processes that lead to modifications within species.

It may be that the open system of growth in plants will make them better subjects than animals for testing hypotheses about the relationship between ontogenetic processes and phylogenetic change.

p. 467 Species of *Rozella* in which the discharge apparatus differs from that described here, especially those which appear to use structures of host-origin (opercula or long discharge tubes) will be mentioned in section IV (see there group "A", as well as *R. longicolis* and *R. pseudomorpha*).

WOULD

p. 433 If intermediate forms do exist between the CL and CH flowers, they would facilitate a comparative study to determine how such modifications evolved.

p. 437 Gene markers would be very useful to test for levels of outcrossing between CH flowers in a population.

Allozymic analysis of the breeding system in populations with different percentages of CL and CH flowers would also provide some direct evidence of a relationship between floral form and function in cleistogamous species.

p. 479 Still, it might be expected that if the parasite invaded a very young sporangial rudiment of the host, the latter would fail to develop its own discharge apparatus.

p. 501 Obviously, if the discharge apparatus of *Rozella* were limited to the characteristic discharge papilla, the zoospores would end up inside the algal host instead of in the surrounding water.

It would be especially interesting to determine how *Rozella* succeeds in finding and attacking its host; presumably, it would have to invade a portion which has not yet become intracellular.

SHOULD

p. 437 Uphof (1938) presented the phenomenon of cleistogamy as an example of floral plasticity; but if fixed ontogenetic shifts in floral form occur in the inflorescence, then developmental constraints in the system exist that should also be recognized.

p. 495 Yet it should be noted that the two terminal ZS segments in a *Saprolegnia* hypha infected with *R-S. septigena* are considerably swollen (Fischer, 1882, Pl. IV, Fig. 20h), their width reaching 30 μ m and their outline broadly clavate or doliform, whereas the width of the non-swollen segments below them remains that of the host hypha, 6-10.

p. 501 In these hosts *Rozella* does in fact form a chain of conjoined segments and should perhaps be considered polysporangiate rather than monosporangiate.

p. 509 It should be noted that a *W. polycystis* described and illustrated by Dangeard (1890) did not cause septation of host hyphae.

JOURNAL OF THE FACULTY OF SCIENCE, SAPPORO, v. 12, n. 3, JULY 1981, p. 147 - 208.

WILL

P. 196 And the possible correlation between cytological and biochemical effects of these chemicals will be discussed.

WOULD

P. 163 I would like to thank Professor Munenao Kurogi of Hokkaido University and Professor John A. West of University of California, Berkeley for their critical reading of the manuscript and their helpful suggestions.

JOURNAL OF NATURAL PRODUCTS, OHIO, v. 45, n. 1, JAN. - FEB. 1982, 104 p.

WILL

P. 9 When this is completed, screening of new compounds in the cell system will begin.

Conceptually, this screening will be very different from anything which has been previously undertaken since each new compound will be tested against a variety of human tumors to determine its activity.

The tumors used will be different for nearly every compound tested because of the limited number of cells which can be isolated as first generation clones from biopsies.

Since this is a cytotoxicity assay, it may be sensitive to toxic substances which don't have in vivo activity so a companion in vivo system possibly using athymic mice will also be developed.

P. 13 Clinical trials in the United States will be starting in about one month at several institutions.

Taxol is another plant-derived agent which will probably be in clinical trials within the next year.

P. 29 Yet the proof of the authors' hypothesis will be gained only by studies with 6 - MSA synthetase in vitro where observations can be done directly and some control can be placed on the possibilities for exchange of isotopic hydrogen with the enzyme or environment.

WOULD

P. 29 It is reasonable to expect that ^2H would be lost by exchange from the methylene carbon of enzyme-bound malonate or from C - 3 and C - 5 of 4a and 4b, since all of these positions should be acidid based on the case of their enolization in vitro (24, 25).

SHOULD

P. 1 NCI decided that since there was not enough information available for extensive rational drug design based on the biology and chemistry of tumor cells, an empirical approach should be used based on screeming large numbers of materials.

P. 102 Since the research reported should be as fully reviewed as regular papers, the author should submit details of the experimental work for consideration by the referee.

Full details of the isolation and identification should be made available to the reader on request to the senior author.

JOURNAL OF NATURAL PRODUCTS, OHIO, v. 45, N. 2, MAR. - APRIL, 1982, P. 105 - 236.

WILL

P. 135 The flavonoid will be reported separately later.

P. 161 Knowledge of the distribution of glycosidic alkaloids is still very limited, and it is probable that more will be isolated from members of the Naucleaeae s. s.

P. 197 Full details are provided in the Experimental section since it is anticipated that this labeled lysine will find wide use in metabolic studies in humans and for examination of the secondary structures of enzymes and proteins.

WOULD

P. 123 It is very conceivable, therefore, that an antibacterial substance extracted from *C. papaya* would show no toxicity to normal animal cells if used for oral and external

therapy.

p. 231 I would not recommend this books to my students and colleagues.

SHOULD

p. 161 Hence suitable extraction techniques for the isolation of glycosidic indole alkaloids should be applied to the various genera of the Naucleaeae s. s. in order to ascertain the actual alkaloids present and to see whether the pyridine-containing alkaloids (11 - 16) are natural products or artifacts.

JOURNAL OF NATURAL PRODUCTS, OHIO, v. 45, n. 3, MAY - JUNE 1982,
p. 237 - 376.

WILL

p. 356 Aporphines of the opposite S configuration may also be found in a plant producing 7 - hydroxylated aporphines, but the aporphines of the S configuration will not be oxygenated at C - 7.

As further aporphines of this type are characterized in the future, it will be of interest to determine exactly to what extent the present trends will need to be modified.

NEW ZEALAND JOURNAL OF BOTANY, WELLINGTON, v. 19, n. 2 1981,
p. 131 - 246.

WILL

p. 207 Furthermore, a collection "on Smilax sp., Oahu: Olympus, June 6, 670" was also cited by Mendoza (in Stevens & Manter 1925) as the only (type) collection of Plochmopeltidella smilacina n. gen., n. sp: it will be noticed that the date was published as June 6 and not June 24 and the host is "Smilax" and not "Pelea".

P. 233 Also, within the geographical range of a species or ecotype, the warmer or milder region will tend to induce higher respiration rates and thus greater carbohydrate losses during winter.

P. 241 Longdistance dispersal will probably affect any analysis based on foliar physiognomy (leaf size and margin type), particularly if it causes species from more than one vegetation type to be present in the assemblage.

This is because the differences in genetic constitution and in physiological capacity between the various species of a community, and the operation of different genetic mechanisms, mean that it is unlikely that any two or more species of a community will follow the same historical pattern, even for a relatively short time (Mason 1947).

WOULD

P. 141 The single genus that would derive from a fusion of these four genera would still contain fewer than 30 species.

This genus would reflect the close biological and genetic relationship shared by the species, in that the only known teleomorphs are species of *Apiospora* (Hudson 1960, Hudson et al. 1976), and, with very few exceptions, all species are graminicolous or cypericolous.

This condensation would also eliminate from a generic key the often variable and ill-defined characters of stroma or setae.

P. 165 On the other hand, the Humboldt Mts and Arthur's Pass samples, lacking triterpene methyl ethers, would have to be treated as segregates in an F_2 or subsequent generation - a totally unlikely proposition for our sample which was gathered from large populations.

SHOULD

P. 141 Again it seems that the similarities are overriding and that *Pteroconium* should also become a synonym of *Arthrinium*.

P. 171 One result is contrary to the earlier report of Martin-Smith et al. (1967) that the plants referred to as *C. atacamensis* did not synthesise triperterene methyl ethers; these plants, which should be known as *C. jubata* (see Connor & Edgar 1974), in fact synthesise arundoin and cylindrin.

NEW ZEALAND JOURNAL OF BOTANY, WELLINGTON, V. 19, N. 3, 1981,
P. 247 - 334.

WILL

p. 299 Chemical studies of the compound will be
published separately, by Dr. H. Young.

WOULD

p. 285 The destruction of the closed-forest would be
unfortunate as it has high nature conservation value.

p. 311 Botany Division, DSIR, would be pleased to
receive specimens of the groups which extend known distributions
or are rediscoveries.

In addition, specimens of species not mentioned here would be
very welcome.

p. 319 Botany division, DSIR, would be pleased to
receive specimens of the groups which extend known distributions
or are rediscoveries.

In addition, specimens of species not mentioned here would be
very welcome.

SHOULD

p. 303 The present work indicates that prospects for
survival of these conidia, until dispersed by rain, should be
improved significantly by their having compound 310. Leach's
(1965) report of the same or a similar compound in several other
fungi suggests that this feature may not be unique to G.
cingulata.

NEW ZEALAND JOURNAL OF BOTANY, WELLINGTON, V. 19, N. 4, 1981,
P. 335 - 429.

P. 353 In case of doubt, microscopic examination will immediately reveal the taxonomic affiliation of the species in question.

P. 381 The dense vegetation cover of the mire (in the continued absence of grazing by stock) will prevent the further spread of pussy willow, although there will be a limited increase in cover from layering and the continued growth of existing plants.

With a rising water table, the extensive areas of bracken will recede, rather than increase, in cover (Cockayne 1967), as will the areas of grassland.

Similarly, broom and gorse will diminish in importance, both as a consequence of the rising water table and the density of the vegetation cover.

In the medium-term, beggars' ticks will increase its cover in the lower area, with the continued rising of the water table.

WOULD

P. 339 Botany Division, DSIR, would be pleased to receive specimens of the group which extend known distributions or are rediscoveries.

In addition, specimens of taxa not mentioned here would be very welcome.

P. 348 After hybridisation, autosyndetic pairing of the two genomes contributed to the hybrid by *L. hymenophylloides* and the two contributed by *L. superba* would ensure regular bivalent formation at meiosis and the potential for a high degree of fertility.

P. 361 Restoration of competence to flower by SDs would then be brought about by a decrease in I level in SDs.

P. 371 In particular, it was suggested that exotic weeds such as blackberry (*Rubus fruticosus*), and pussy willow (*Salix atrocinerea*) were rapidly displacing the indigenous vegetation, that ecological succession would shortly lead to the current mosaic of vegetation types being replaced by a rather uniform mire forest, and that forming followed by urban development of the lower valley and surrounding hill slopes would destroy the mire.

SHOULD

p. 381 Blackberry appears to be stable, and should not show substantial changes in cover in the absence of grazing.

However, flax should grow through to replace this species eventually.

p. 405 Reference should be made to Stidolph (1980) for illustrations of the holotype.

PLANT PHYSIOLOGY, MARYLAND, v. 63, n. 2, FEB. 1979, p. 227 - 408

WILL

p. 246 The cellular uptake will result in a concentration gradient of L - alanine, extending from the xylem vessels into the apoplastic spaces of the surrounding tissue.

Because of the saturation kinetics this gradient will be very steep at low amino acid concentrations in the xylem vessels, but will be more flat at higher concentrations.

As a consequence, amino acid uptake will be confined to a small number of cells around the xylem vessels at low concentrations, whereas a larger number of cells will participate in uptake at higher concentrations.

p. 253 This possibility will be investigated by conducting voltage clamp experiments on an alkaline band.

This aspect of charge balance will be discussed in detail in a forthcoming paper (2).

p. 254 We will investigate the possible nature of this feedback signal in a future study.

p. 367 According to what could be termed the intermediate permeability hypothesis, the chemical will diffuse passively into the symplasm of the phloem and will be carried away along with the assimilates.

p. 371 If the xenobiotic is confined to just 10% of the leaf area then C^2 will be 10 times larger in the margin than if the same quantity of xenobiotic is distributed over the entire leaf blade.

p. 375 We will attempt to show how the organization of the particles on the EF face relates to that of the phycobilisomes.

To this end, we will show how a genetic mutation leading to the loss of the phycobilisomes affects the arrangement of the

particles on the EF face.

p. 399 The only method that will measure
photorespiration during steady - state photosynthesis is the
isotopic CO₂ system devised by Ludwig and Calvin (15).

WOULD

p. 230 Of course, at the pH of the incubation medium
(~7.25), protoporphyrin would be expected to be less soluble in
the stromal fraction than uroporphyrin or coproporphyrin.

p. 250 If the alkaline band was being generated by H+
influx, it would seem logical to suppose that changing the H+
concentration from 10⁻¹⁰ molar (i. e. a steady - state pH of
10.0) to 10⁻⁵ to 10⁻⁶ molar (pH 5 - 6.0) would come close to
saturating the putative H+ transport system.

If this were the case, the "saturating" supply of H+ would
"buffer" the alkalization process.

Proton transport would need to occur for a period before the
system would generate OH⁻ at a significant rate at the cell
surface.

p. 254 Under the observed treshhold pH value, HCO₃⁻ would
be converted to H₂CO₃ and this species would dissociate to CO₂
and H₂O.

The sites must have remained at this surface during the initial
60 - min recovery period, otherwise some HCO₃⁻ binding would
have occurred across the inner membrane surface.

In the presence of GDW, the cation concentration would be so low
that very few of the transported OH⁻ could move away from the
membrane surface.

This accumulation of OH⁻ would develop a localized region of
negative charge on the outer membrane surface.

p. 278 The decrease in glucosylbenzyladenine formation
at high and low temperatures is the reverse of what would be
expected if it were the result of a lower benzyladenine
concentration being reached in the seedlings (cf. the lower per
cent formation with 0.11 mM as compared to 1.3 μM benzyladenine)
(Fig. 2).

p. 310 From known P. values (11) it is clear that Ca
and K would produce EDx peaks of very similar heights if the two
elements were present in a sample in equal concentrations.

p. 334 Since the principal activity vis à vis fatty acid
metabolism in the newly greening cotyledons is linoleate

desaturation to α - linolenate, it is to be expected that the linoleate - desaturating enzyme system would prove more responsive to illumination.

Subsequent activities would be confined to keeping pace with membrane turnover, which proceeds at a much slower rate (30) and such material would not be expected to provide a good source of C_{18} desaturase activities.

p. 359 Such a result would implicate the physiology and biochemistry of SSM production as manifestations of cyanide - resistant respiration.

p. 367 In some cases it is desirable to have an antimobile xenobiotic chemical which would be distributed widely throughout a plant after a foliar spray.

The chemical would travel down to the roots in the phloem and continuously circulate back again in the xylem so that even the leaves and roots formed after the spray treatment would be protected.

p. 371 If sugar unloading does not occur in the upper part of the root then the sap velocity would not decline and the xenobiotic concentration would decline as in the dashed line.

However, there would have to be an even more intense sink farther down the sieve tube which would lead to even more marked accumulations of xenobiotic.

Curve B shows what would happen if the permeability were 10 times larger, $P^* = 2 \times 10^{-8} \text{ m sec}^{-1}$, but everything is the same as in curve A.

We suspect that a complete solution of the problem would reveal that xenobiotics that are confined to the margins of leaves tend to have permeabilities that are much larger or much smaller than the optimum permeability.

The xenobiotic in curve B would thus be pseudoapoplastic as defined by Edgington and Peterson (5) and it will be apparent later that this permeability is above the optimum.

On the other hand, a substance with a permeability much below the optimum would be confined to the margins because the substance would enter the symplasm too slowly to be carried opposite to the transpiration stem in large quantities.

p. 379 The core subunit would then contain only a small part of the antenna.

The EF particles of *C. caldarium*, and more generally of red and blue-green algae, would then correspond to the core subunit of the EF particles seen in green algae or higher plants.

p. 399 This would be because of the contribution of internal $^{12}\text{CO}_2$ production to the internal $^{12}\text{CO}_2$ concentration of

the leaf.

The internal production of the "isotopic species would be negligible immediately after their introduction, and hence the influx of $^{14}\text{CO}_2$ or $^{13}\text{CO}_2$ would exceed that for $^{12}\text{CO}_2$.

If that conceptual analysis was correct then the observed differential uptake of isotopic species (15, 16) would have a physical basis and would not be of biological significance.

SHOULD

P. 262 Their procedure of extraction with acid-alcohol, followed by passage through Dowex2-X8 resin should exclude peptides; these compounds should be soluble in 10% trichloroacetic acid.

P. 307 Since size of the seeds of the five Cucurbita species chosen ranged from large to small, this should provide a good test of any relationship between seed size and elemental distribution.

P. 310 The values presented here are arbitrary units and thus no attempt should be made to consider these data in terms of quantitative values such as per cent dry weight or per cent of a globoid crystal.

Since peak heights produced are not the same for equal concentrations of all elements, caution should be used when attempting comparisons of levels for the four elements studied here.

P. 350 Although the E_a for denaturation are very similar it should not be concluded that at pH 7.5 the NADH-NR and component enzymes have identical stabilities.

P. 379 Further investigation using other mutants should provide additional information on this question.

PLANT PHYSIOLOGY, MARYLAND, V. 69, N. 5, MAY 1982, P. 991 - 1246.

WILL

P. 1136 The effect of blocking the interconversion of glycine to serine under these two conditions and the direction

of the net carbon flow between these two amino acids will be discussed.

P. 1245 Further studies will be required to determine why procedures suitable for isolation of plasma membranes from a number of plant species are not applicable to wheat.

WOULD

P. 1068 Greater canavanine production would be expected from a labeled precursor that is not subject to the reactions competing directly for carbamoyl phosphate and that resides closer to the actual formation of canavanine.

P. 1115 Therefore, if chloroquine affects the cyanide - resistant respiratory pathway, an inhibition would only be expected in state 4.

P. 1144 The high rate of NADPH depletion would then allow a high rate of noncyclic photosynthetic electron flow and lead to a large enhancement of the P to S decline.

P. 1148 It might be argued that these low ψ_w are an artifact of excision because the walls of the growing cells would continue to extend after excision and turgor would fall with a resultant decrease in ψ_w .

The turgor and substrates nevertheless permit slow growth when none would otherwise occur.

P. 1182. A unit of enzyme was defined as that amount which would catalyze the hydrolysis of 1 μ -mol galacturonosidic bonds/min from 0,25% polygalacturonic acid at pH 4.9 and 30°C.

To test this hypothesis it would be useful to have a preparation of Rs EPGase for which the enzymic activity had been destroyed in some manner with only minimal disruption of its tertiary structure, water solubility, and external carbohydrate structure.

SHOULD

P. 1008 This ability should involve a considerable resistance to the diffusion of CO₂ from the cells, but it is not known whether the increased ability to concentrate CO₂ in Anabaena cells involve a change in the resistance to CO₂ diffusion.

P. 1132 If dehydration stress disrupts membrane integrity

in desiccation - sensitive seeds, then changes in leakage rates and increases in the amount of solutes leaked may be detectable in response to dehydration, and these changes should be associated with loss of viability.

PLANT RESEARCH AND DEVELOPMENT, HAMBURG, v. 12, 1980, 119 p.

WILL

P. 24 Manuring will therefore, within certain limits, reduce the relative amount of each nutrient leached out, and in the case of phosphate even the absolute leaching speed (table 8).

P. 60 The optimum altitude for the species grown here seems to be from 2.000 to 2.700m, the main growing area which will be discussed in detail being concentrated around Ayacucho.

P. 76 During the land reclamation and development surveys carried out in that area the author came across a special type of land-use which will be briefly described below.

P. 84 If the capacity of a beet factory is increased from 2.500 to 5.000 tonnes per day and its operating season reduced from 100 to 50 days, then one must reckon that the production costs per tonne of sugar will rise by up to 60%.

WOULD

P. 16 It would go beyond the scope of this paper to deal in detail with the properties of individual plant nutrients and we can only refer the reader to the literature (2).

P. 32 In the case of the traditional, quick-acting fertilizers, a single application of nutrient before sowing would result in too much reaching the young plant and too little reaching the ripening plant, and this situation would become more extreme as the quantity of fertilizer, was increased.

P. 68 This would be an effective way of safe-guarding the functionability of the arid regions of the lower latitudes as a habitat for man and beast.

P. 101 No farmer or horticulturist would ever think of admitting goats for uncontrolled grazing to land under productive management.

P. 109 A number of estimates suggest that from the point of view of production technology it would be possible to feed adequately the continually increasing world population both today and also beyond the year 2000.

To do this it would, however, be necessary to use more intensively land already cultivated and also increase the land cultivated by opening up new land.

SHALL

P. 16 We shall take calcium as an example of all nutrients however and shall illustrate one function peculiar to this nutrient in plant metabolism.

SHOULD

P. 44 The first mepiquat chloride, is a derivative of chlorocholine chloride and should therefore act in a similar manner, whereas the second component, ethephon, acts in conjunction with the first as an ethylene generator and strengthens the stalk.

P. 56 It should be mentioned that the majority of the authors mentioned often provide only general data on individual characteristics and only Wester (1914) gives detailed variety descriptions.

P. 60 This growing area should now be studied in greater detail.

P. 97 I should like to thank the following for kindly providing me with information: (...)

P. 101 This principle should also apply to plant production in forests but it is permanently violated the world over (because the goat as the domestic animal of the most destitute part of the population generally evades rational and controlled management practices).

PLANT RESEARCH AND DEVELOPMENT, HAMBURG, v. 15, 1982, 124 p.

WILL

p. 27 The afforestation of allocated estates is tax-free, as are the products that will result from these afforestation projects.

The practical execution of these ordinances will probably also involve difficulties, because the banks in Central America are usually only active on a short or medium-term basis in the agricultural sector.

p. 35 It will not be possible to change this until better economic and social solutions are found to satisfy the basic needs of the population.

p. 83 In the long term there will certainly not be any alternative energy source to wood.

p. 87 Consequently, it is probable that in certain localities the forests will have completely disappeared by the end of the century.

p. 91 For several decades the economic structure of the country has been undergoing a change which has nothing to do with current development aid and planning (Högger 1975). A brief look at the country's history will show what I mean.

p. 113 In the future afforestation will be undertaken almost entirely by the private sector.

By the end of the century it is expected that there will be a total area of about 1.4 million hectares *Pinus radiata* with an annual rate of felling of 25 to 35 million cbm.

p. 120 Obviously, wherever the staple food has a value below this limit it will be imperative to supplement the diet with foods which are richer in protein.

p. 121 Only four points will be mentioned briefly:

WOULD

p. 87 Pruning of branches, timber extraction, grazing of livestock in the forest and spring fires combined with uneconomical methods of working the felled stems result continuous and - so it would currently seem - unstoppable destruction of the forests.

SHOULD

p. 7 At present, Belize (formerly British Honduras)

has the status of an associated state within the British Commonwealth; its future situation has not yet been decided; geographically, it should be classed with Central America.

p. 97 Although many different endogenous and exogenous factors are involved in achieving optimum Yields we should try to optimize the economically usable part of a yield by employing means of production that are suited to the physiological needs of a plant.

p. 121 The preoccupation of breeders should not be to raise the percentage of protein contained in food plants, but to increase the protein yield per ha. and unit of time.

Protein content and protein quality should never be improved at the expense of yield (Jain 1975).

Since the main task of the agronomist is production of energy for human nutrition and, to an increasing extent, for industry, increases in protein production should not lead to restricted cultivation of plants with a superior energy production potential, such as tuber and root crops and sugar-cane.

In conclusion, a word should be said about the contribution of plant and animal production to feeding the world's population.

SMITHSONIAN CONTRIBUTIONS TO BOTANY, WASHINGTON, D.C., N. 33,
1976, 59 p.

WOULD

p. 31 It would probably be mistaken for *P. damaziana*, which has a different chemistry ("horrescens" unknown) and smaller spores.

SHOULD

p. 8 It should be assumed, incidentally, that unless otherwise stated, the components of each species in the taxonomic section refer to the holotype or lectotype specimens with additional comments on the results from other specimens.

SMITHSONIAN CONTRIBUTIONS TO BOTANY, WASHINGTON, D.C., N. 48,

1981, 45 p.

WILL

p. 1 Long term studies of year-to-year variation in population dynamics are continuing, and will be presented in later papers.

p. 24 Further studies will be required to determine the causes of these patterns in seasonality.

p. 36 However, the presence of dead adults of all sizes in these populations suggests that they could be in equilibrium, such that the differences between them with respect to plant height will be maintained.

WOULD

p. 24 This would be most important for short plants located on the leeward sides of taller plants.

p. 32 At 4200 m this would increase the probability of seedling establishment during periods of low soil frost activity.

It would also facilitate seedling growth in a rocky substrate or in dense mats of vegetation - habitats conferring protection from frost heaving.

SMITHSONIAN CONTRIBUTIONS TO BOTANY, WASHINGTON, D.C., N. 50,
1981, 83 p.

WOULD

p. 5 After attempting to verify the identification of some voucher specimens, the authors would agree.

p. 12 Since the foot layer is formed developmentally in this manner, it seems more likely that these channels should be interpreted as evidence of incomplete fusion as opposed to the idea that they have formed in a already solid wall.

p. 17 While the mean length of *P. hispidum*, 38.9 μm , is slightly larger than any of *P. peltatum*, the high for each of the nine would include the low, 36.4 μm for *P. hispidum*.

p. 21 The close similarity between Saenz de Rivas' rugulose type (1979, figs. 1E, 1F), and the reduced striae distinction type in the Berberidaceae, as illustrated by *Vancouveria chrysantha* (Figure 97) and *Dysosma* (Figure 79, 80, 92), would be difficult to refute.

SHOULD

p. 17 It should be noted that Figure 199 is somewhat oblique. Sections through the larger gemmae illustrate the undulate surface characteristic.

p. 25 In considering the disparity of the palynological results with Jensen's (1974) preliminary data from serology (see page 3), it should be noted that conclusions from the latter source are restricted to comparisons among the taxa investigated.

SMITHSONIAN CONTRIBUTIONS TO BOTANY, WASHINGTON, D.C., N. 52,
1981, 28 p.

WOULD

p. 9 Further supporting evidence from within the Heliantheae is the frequent occurrence of the number $X = 19$, which would be more difficult to explain from an original base of X less than 10.

p. 21 It would seem that the ancestrally polyploid chromosome complement in the Helianthianae is unusually susceptible to abrupt reversions to approximations of the diploid number.

SHOULD

p. 5 It should be emphasized that the revised classification has been used as a basis for organizing the data in the present study, but it is of critical significance only

in the discussions of various subtribes.

p. 21 The most recent of a series of studies of the Mexican genus *Cymophora*, with $n = 8$, indicates that it should be kept separate from *Tridax* (Turner and Powell, 1977a), but the difference is based only on one count of one species (Turner et al., 1973).

WILSON, L. C. & LOOMIS, W. E., BOTANY, NEW YORK, HOLT, RINEHART AND WINSTON, 1966. 573 P.

WILL

p. 1 Experiences in the field, the laboratory, and the classroom will, it is hoped, develop an understanding of these two words.

p. 12 Botanists are called upon also in attempts to find new sources of fibers, tannins, essential oils, waxes, gums, and resins, and will undoubtedly participate to an even greater degree in the future in one of the major problems of mankind - the exploitation of the plant resources of the world.

p. 33 In woody plants the position of the winter bud, and in herbaceous plants the position of a bud or branch, will provide the proof.

p. 64 It will, however, increase the energy of the individual water molecules.

If sufficient pressure is applied on one side of a membrane separating a sugar solution from pure water, the pressure effect becomes greater than the concentration effect, and water will again diffuse from a region of lower to one of higher concentration.

p. 76 Of the many scientists who contributed to the discovery of photosynthesis only a few of the pioneers - Joseph Priestley (1733 - 1804), Jan Ingen - Housz (1730 - 1799) and Theodore de Saussure (1767 - 1845) will be mentioned briefly.

p. 88 If the bubbles are collected as shown in this figure and a glowing wood splinter is thrust into the test tube, the splinter will burst into flame, indicating an increased oxygen concentration.

p. 93 If this process is prevented, as by the removal of the aerial portion of the plant, normal growth will not take place and the plant will eventually die if the treatment is continued.

P. 104 Unless properly handled and stored, these foods will soon deteriorate, either through their own activities or by the action of bacteria and fungi.

P. 107 Not only is the process of fermentation poor in energy yield, but the end products are toxic to the cells carrying on fermentation, 108 and if these products accumulate, they will check the activities of the cells and may eventually kill them.

P. 149 The movement of water vapor from the air into the leaf will reduce the net rate at which water is lost. Thus, other things being equal, transpiration will decrease as the humidity of the air increases.

The net loss, or transpiration rate, will therefore be $50(100 - 50)$ molecules per second. If now, the temperatures of the leaf and air are increased to 88°F , the evaporation and escape of water from the leaf will be doubled to 200 molecules per second. The rate of return from the air will, however, be unchanged at 50 molecules per second. The small effect of the temperature rise of the vapor molecules in the air will be offset by the expansion and therefore decreased concentration, in the unconfined air. The net loss will now be $150(200 - 50)$ molecules per second, and transpiration will have been increased three times.

P. 153 Water, however, will rise through long sections of stems killed by heat or poisons, indicating that other mechanisms are operative.

If the base of a glass capillary tube is placed in water, the liquid will rise in the tube by capillarity.

P. 156 When the solute concentration, and therefore the dilution of water, within the xylem becomes great enough, water will diffuse from the soil into the xylem, moving across the turgid cells of the cortex, which act as a complex, differentially permeable membrane.

P. 156 In general, they open in light, but will close if the leaves become wilted.

P. 163 The deeper the fill, the more likely that injury will result, especially if heavy subsoil is placed over the old soil level.

P. 172 The use of radioisotopes in the study of plant processes is relatively new and will undoubtedly lead to many important discoveries.

P. 176 A shortage of magnesium will appear as an irregular chlorosis (yellowing) of the leaves.

P. 199 Most of these, however, will flower more rapidly with shorter days, showing their inherent short-day nature.

Light at this intensity will promote the flowering of long-day plants or inhibit the flowering of short-day species.

P. 206 If the tip is now exposed briefly to light from one side, more auxin will diffuse into the block on the side of the tip away from the light.

The curvatures that result from the stimulus of gravity on both root and shoot may be demonstrated by placing a young and actively growing plant in a horizontal position; the shoot will soon bend upward, the root downward.

P. 243 Pollination is incidental to these activities. Pollen will usually be found adhering to the mouth parts head, legs and body hairs of a bee after it has visited a flower.

P. 247 Only intimate contact, such as handling roser or goldenrod, will produce symptoms of the disease in an allergic person.

Whether a sensitized person will develop hay fever depends upon the kind and amount of pollen in the air.

P. 250 Flowers, and very young fruits of apples, corn, and other plants are poor competitors for foods, and will continue growth only when these materials are freely available and close at hand.

In contrast, rapidly developing fruits on the same plants will compete strongly for foods over distances of several feet.

P. 272 Light rains in hot, dry weather will usually have no effect upon the soil moisture content, for the water does not get down to the roots, and quickly evaporates from the soil surface.

P. 276 The most shade-tolerant seedlings will survive with 2 or 3 percent of full sunlight, but will die as they become older and require more food.

A number of species will grow for some time with 4 or 5 percent of full light.

P. 280 In the course of time a given territory will be occupied successively by different plant communities, a process known as succession.

P. 297 Commonly, when several genes acting together determine the appearance of a character, that character will not appear if any one of these genes is absent.

P. 305 Gametes bearing recessive genes will combine with genes of similar heredity, and recessive genes will no longer be masked by their dominant alleles.

P. 308 If the seed germinates and the small struggling plant lives and reproduces, there will arise a race different

from the meadow plants from which it originated.

By the end of the eighth consecutive season of growth, one hundred thousand billion mature plants will have been produced as the direct descendants of the first plant, and if they were corn planted at the usual rate they would cover the cultivatable land of the earth.

P. 316 Such crosses at the above, will, result, following segregation and recombination in later generations, in a great variety of gene combinations that will be acted upon by natural selection.

Most of these combinations will be eliminated, but some may possess superior adaptations, or may be particularly well adapted to habitats formerly unavailable.

P. 320 Since ancestral genes are preserved, it is to be expected that they will be responsible for the appearance of ancestral features.

P. 336 Since the plant body is not very specialized, almost any large fragment will continue to grow if conditions are favorable.

P. 364 After a few days of incubation the surface of the agar will show many colonies, each usually the result of the growth of a single cell that fell upon the medium.

P. 368 Physiological reactions are studied to determine whether an organism is aerobic or anaerobic, which sugars it ferments and which gases or acids it produces, the temperatures at which it grows best, whether it will liquefy a gelatin medium, and to observe other results of bacterial action.

Certain of these methods will kill bacteria in the vegetative but not the spore stage.

P. 372 When frozen or refrigerated food is brought to a higher temperature, it will decay or serve as a source of bacterial infection unless it is consumed immediately.

P. 388 Such infectious agents, in a form or condition that will not produce the disease itself, are used to build up a state of resistance.

P. 413 If these hyphae chance to encounter the proper species of alga, a new thallus will arise.

P. 419 The hyphae will continue to feed upon the wood and will form new fruiting bodies.

P. 518 A number of angiosperm families have expanded greatly in recent times and will probably become even more significant components of the earth's flora as the centuries pass.

pass.

P, 526 It will be recalled that the legumes occupy a unique place in agriculture because of the part they play in the improvement of soil fertility.

WOULD

P, 1 As would be expected, these methods must be as varied as the problems to which they are applied.

P, 4 This group of ten plants would be the check, or control group, and all other groups of plants would be compared with it.

These groups, each differing from the controls by one factor, would constitute the experimental groups.

All the plants would be set in the same environment so that the factors of light, ventilation, temperature, and moisture would be identical for all groups.

At regular intervals as the plants grew they would be observed, measured, and subjected to chemical tests.

The experimental plants would be compared with the controls and with the tobacco plants whose growth - or lack of it - worried the farmer.

But if one experimental group resembled the farmer's tobacco more closely than others in growth pattern and appearance, this group would be selected for further study.

The remainder would be kept as controls.

Normal growth of the experimental group, in contrast to the stunted controls, would be further evidence that this specific mineral deficiency was involved.

P, 12 Botany has had profound long-range effects on human life. Yet no botanist would claim that the science of plants has held, or holds now, the solution for the world's food problems.

P, 112 It is used in medicine and surgery and is widely employed in the brewing industry to digest proteins that would otherwise precipitate when beer is cooled.

P, 138 Rabbits and mice sometimes girdle orchard trees as they feed on the bark in winter. Such trees will normally die, but can be saved by bridge grafting them promptly - that is, by grafting both ends of a number of living twigs into the bark above and below the wound, thus bridging the wounded area.

p. 156 If a pressure of five atmospheres were to be applied to the water surrounding the roots, while at the same time the water inside the plant is under a pressure of one atmosphere, water would move into the plant because of the effect of this outside pressure in increasing the diffusion pressure of water.

Movement under these conditions is called passive absorption because the forces bringing it about arise at the top of the plant rather than in the roots, and because it will function, for a time at least, in dead roots.

p. 160 If later observations were made on this root it would be evident that the original third and most of the second millimeters had ceased to elongate.

p. 184 In the course of time they would become locked up in organic form and so become unavailable to future generations.

In the absence of this soil cycle, life on earth would eventually cease.

p. 251 This story would be incomplete without a consideration of the fruit, of fruit and seed dispersal, and seed germination.

p. 312 Finally, the effect of combinations of genes upon the phenotype is often very different from what would be expected from a knowledge of their individual effects.

p. 388 The exotoxin is seldom used directly, for it would produce the disease, at least in a mild form.

SHOULD

p. 4 His observations, together with an awareness of how thriving tobacco should look, force him to turn to the botanist and ask, "what is wrong with my tobacco?"

p. 44 Before proceeding to a detailed consideration of various parts of the cell, it should be emphasized that cells are three-dimensional; having depth as well as length and width.

p. 52 If green plants should cease to synthesize carotenes, animal life could not long survive.

p. 108 A distinction should be made between an anaerobic mode of life - "life without air" - and anaerobic respiration.

p. 141 The branch should be removed close to the tree in such a way that the wound is flush with the surface.

A medium-sized or large limb should not be removed by a single saw cut, since this may result in stripping the bark from the wood below the cut.

P. 153 The erroneous idea of "rising sap" should be discarded, for the tree contains water in the winter as well as at other times of the year.

p. 160 Before we consider the nature of the mature root tissues, one distinct and characteristic root structure should be mentioned.

P. 199 The added light should be rich in red wavelengths, from incandescent rather than fluorescent lamps, since red light is most effective in photoperiod and many growth responses of plants.

P. 260 It should be noted that the possession of modifications, that aid dispersal does not in itself ensure that a given species will be distributed widely.

P. 268 These dry seeds germinate vigorously when moistened. Their respiration should be at the vanishing point, and if storage in nitrogen gas will stop oxidation and other changes they may be able to survive indefinitely in a state of suspended life.

P. 297 If a red flowered plant is hererozygous, one half of the gametes (following segregation) should contain R and one half r.

Following crosspollination, the zygotes formed should be Rr and rr in approximately equal numbers, and therefore half should produce red flowers and half white.

P. 301 If a harmful dominant gene should occur it is soon eliminated by natural selection.

P. 308 Calculations show that if all the progeny of any of a number of species should survive and again reproduce, this species would populate the earth in a few generations.

P. 344 One should not assume that Ulothrix and Dedogonium are themselves the ancestors of higher plants, but they do possess features in their life cycles that may represent stages in the evolution of our familiar plants.

P. 356 In some reefs, atolls, and islands, the coral animals have been most important; in others, which should perhaps be called algal reefs or algal islands, the red algae have predominated.

P. 364 It should be noted that the energy obtained by the chemosynthetic bacteria from external sources is used only to synthetize organic compounds as food.

P. 427 The hyphae of the fungus destroy chlorenchyma tissue and utilize large quantities of food that should be available for storage in the seed.

TEXTOS DE BOTÂNICA

- 1 THE BOTANICAL MAGAZINE, Tokyo, v. 94, n. 1036, Dec. 1981, p. 295 - 383; v. 95, n. 1037, Mar. 1982, p. 1 - 80.
- 2 THE BOTANICAL REVIEW, New York, v. 47, n. 2, Apr. - June 1981, p. 147 - 312; v. 47, n. 4, Oct - Dec. 1981, p. 421 - 555.
- 3 JOURNAL OF THE FACULTY OF SCIENCE, Sapporo, v. 12, n. 3, July 1981, p. 147 - 208.
- 4 JOURNAL OF NATURAL PRODUCTS, Ohio, v. 45, n. 1 - 3, Jan. - June 1982, p. 1 - 376.
- 5 NEW ZEALAND JOURNAL OF BOTANY, Wellington, v. 19, n. 2 - 4, 1981, p. 131 - 429.
- 6 PLANT PHYSIOLOGY, Maryland, v. 63, n. 2, Feb. 1979, p. 227 - 408; v. 69, n. 5, May 1982, p. 991 - 1246.
- 7 PLANT RESEARCH AND DEVELOPMENT, Hamburg, v. 12, 1980, 119 p.; v. 15, 1982, 124 p.
- 8 SMITHSONIAN CONTRIBUTIONS TO BOTANY, Washington, D.C., n. 33, 1976. 59 p.; n. 48, 1981, 45 p.; n. 50, 1981, 83 p.; n. 52, 1981. 28 p.
- 9 WILSON, L. C. & LOOMIS, W. E. Botany. New York, Holt, Rinehart and Winston, 1966. 573 p.

TEXTOS DE MEDICINA

AMERICAN JOURNAL OF OPHTHALMOLOGY, CHICAGO, V. 93, N. 2, FEB.
1982, P. 145 - 270.

WILL

P. 206 Because all three techniques satisfy the criteria described earlier for usefulness in a clinical setting, judgement about the comparative value of the methods must await further clinical application. Studies in which two or three of the techniques are used to assess serially the visual acuity of the same infant will be particularly informative.

WOULD

P. 168 Group C - The visual prognosis of the 15 eyes in Group C was favorable without treatment. One eye with a dissecting macroaneurysm initially would have been placed in this group, but it later developed exudates and edema in the macula.

P. 190 Because of the criteria for pars plana filtration in our series, the eyes had more severe preoperative problems (anterior chamber or vitreous hemorrhage and traction retinal detachment) than those in the series reported for anterior segment filtering procedures. Anterior chamber hemorrhage would reduce the success of anterior segment filtration, whereas vitreous hemorrhage and traction retinal detachments would not allow successful visual rehabilitation of these eyes by anterior segment surgery alone.

P. 198 There can be little argument, however, that some measure of the visual acuity of the infant would often be interesting and helpful to the pediatric ophthalmologist.

SHOULD

P. 182 The possibility of retinal detachment must be kept in mind during postoperative examinations as well. To minimize bullous keratopathy, the intraocular instruments and stream of infusion fluid should be kept away from the corneal endothelium.

P. 198 For any such technique to be clinically useful, certain criteria must be fulfilled: (1) it should not risk the infant's general health (that is, anesthesia should be avoided); (2) the method should be simple and cause no distress to infant or parent; (3) it should be accomplished in a reasonable amount of time; (4) it should be reliable and reproducible within clinically acceptable limits; and (5) the results should correlate with well - known clinical patterns that reflect certain levels of visual acuity in older children and adults.

P. 263 The Fifth International Perimetric Society Meeting will be held Oct. 20-23, 1982, in Sacramento, California. Abstracts (100 to 200 words long) should be written in English and sent by airmail no later than March 1, 1982 to Anders Heijl, M. D., University of Lund, Department of Ophthalmology in Malmo, S-21401, Malmo, Sweden.

AMERICAN JOURNAL OF OPHTHALMOLOGY, CHICAGO, V. 93, N. 3, MAR. 1982, P. 271 - 388.

WILL

P. 343 Although the postoperative visual acuities in some cases were several lines less than the preoperative potential, these acuities will probably improve further with time.

P. 380 Although these newly derived concepts may not all stand the test of time, they are nonetheless thought-provoking. These new directions will appeal to students and visual scientists.

Although the biochemical details contained in certain chapters may well exceed the interest of clinical ophthalmologists, they will enjoy the discussions of such subjects as the mechanism of action of timolol, the search for a systemic mediator as a cause of diurnal changes in aqueous humor formation, a retinal antigenic origin for uveitis, the loss of tolerance to lens

protein as a cause of lens-induced uveitis, macular degeneration resulting from a combination of light damage and nutritional deficiency, and the possibility of pharmacologically treating central nervous system inhibition and reversing amblyopia.

This book succeeds because it is able to stimulate new directions in ophthalmic research. Both clinicians and scientists will enjoy reading it. I would recommend that it be required reading for ophthalmology residents because it bridges the gap between basic scientific and clinical application.

WOULD

p. 302 Our results supported the data of Zigman and Vaughn who found that continued near-ultraviolet exposure of the mouse retina resulted in progressive loss of photoreceptors. We assume that long-term chronic exposure to near-ultraviolet would result in a drastic reduction in the rhesus photoreceptor cell population.

If we assume a 25- μ m retinal spot size to the $1/e^2$ Gaussian distribution points and a direct transmittance through the ocular media, including the lens, of 0,008 at 325nm (a value in accord with their estimate), we arrive at a calculated retinal irradiance and would give a radiant exposure of $\approx 10 \text{ J.cm}^{-2}$, which agrees with our estimate of 5 to 5.5 J.cm^{-2} for 100- and 1,000- second exposures; one would expect a higher radiant exposure for exposure times of less than one second.

p. 356 Therefore, the hematologic risk associated with topically administered ocular chloramphenicol may be higher than few reported cases would indicate.

p. 380 I found this book interesting to read and intellectually stimulating. I would recommend it to all students of visual science whether they be medical students, ophthalmology residents, visual scientists, or clinical ophthalmologists.

SHOULD

p. 287 Further, previous reports on congenital rubeola retinopathy have suggested that the choroid may be affected in severe cases. This condition should be differentiated from

acute posterior multifocal placoid pigment epitheliopathy, pigment epitheliitis, and Harada's syndrome.

p. 310 Clinically, our patient's findings suggested that a retinopathy composed predominantly of nerve fiber layer infarcts is not invariably secondary to collagen vascular disease, even if serologic abnormalities are present. Such patients should be questioned about surgical asplenia and possible exposure to ticks on Nantucket Island or Martha's Vineyard.

p. 356 Any other suspected cases of ocular toxicity associated with topically applied chloramphenicol should be reported to the National Registry of Drug-Induced Ocular Side Effects, Oregon Health Sciences University, Portland, OR97201.

BEESON, B. PAUL & MC DERMOTH, WALSH. TEXTBOOK OF MEDICINE.
LONDON, W. B. SAUNDERS, 1967. 1720 P.

WILL

P. 1 If a patient feels that his problems are provocative, not only of scientific interest, but also of a deep concern over his happiness, he will be more open in discussing his life and his deeper feelings, and also more cooperative in accepting unpleasant diagnostic and therapeutic procedures.

P. 5 Although direct evidence concerning the nucleotide sequence in a DNA molecule has not yet appeared, it seems probable that information bearing on this important problem will ultimately be obtained.

P. 47 Sometime in the future, perhaps 20 years from now, we can look forward to the time (the phase III) when the present eradication program will have eliminated smallpox as a threat to man. At that time vaccination will no longer be necessary, and jennerian vaccinations will then be a matter of historical importance only.

Until this is achieved, however, smallpox vaccination will continue to be necessary (phase II) particularly for those at risk, namely, travelers to endemic areas and those who by their occupation are likely to come into contact with such travelers.

The most likely approaches will be by the use of attenuated strains of vaccinia or killed vaccines in a prevaccination procedure.

Until these are generally available, we will remain in the current phase, phase I.

Many of the important complications of vaccination occur in those with pre-existing abnormalities; identification of those persons who are most likely to develop significant reactions will eliminate much of the hazard that exists with the present program.

If vaccination is performed under these circumstances, it will spare the child the danger of acquiring accidental infection from a sibling or playmate at a time when he is not properly protected.

P. 89 Injection intraperitoneally and intracerebrally into baby mice or baby hamsters of blood serum obtained during any phase of the disease will cause the death of these animals; neutralization of the virus with immune serum results in survival.

p. 93 The point has been made that only a competent laboratory can establish a definitive etiologic diagnosis that will distinguish which of a number of arboviruses in the cause of what is now commonly called primarily encephalitis.

The value of the specimen and its documentation will govern the extent to which it is examined in the laboratory and the significance of the test results.

As convalescence proceeds physiotherapy will minimize paralytic contractures and special attention may lessen consequences of mental and emotional changes.

p. 136 For patients too ill to take oral medication, parenteral preparation must be used; where these are necessary, the patient will also require intravenous fluids to correct the electrolyte and/or fluid abnormalities.

Early treatment will also prevent sequelae such as brain or heart damage, which have been observed in patients who have been treated late in their illness.

p. 140 Relapses have been observed in patients treated during the first week of fever; continuation of therapy through the fourteenth day of disease, or the administration of single 3.0 gram oral doses of drug on the seventh and fourteenth days following cessation of the initial course of antimicrobial therapy will prevent recrudescences of infection.

If treatment is discontinued before the patient has had sufficient time to develop an immune response to infection, the rickettsiae will proliferate and cause a febrile reaction approximately seven days after the last dose of antimicrobial drug.

During periods of political stability, the application of residual miticides such as dieldrin or lindam to large areas of terrain will permit safe continuation of operations in rubber plantations and similar industrial activities that bring workers into contact with areas previously known to be the source of numerous infections.

p. 165 The injection of 0.1 ml of scarlet fever antitoxin, or of 0.2-0.3 ml, of convalescent human serum into an area where the rash is florid will be followed by blanching around the site of injection in 8 to 12 hours.

The application of a tourniquet to the arm for five minutes will be associated with the appearance of large numbers of petechiae distal to the obstruction in nearly all cases.

p. 173 If the disease is sufficiently extensive to cause serious impairment of the function of the heart, the usual symptoms of cardiac failure will be superimposed on those of the acute rheumatic fever.

p. 185 It will be recalled that primary staphylococcal

pneumonia is not commonly associated with bacteremia.

P. 217 In most instances 1 million units of a procaine penicillin preparation given every 12 hours will be adequate, but in some cases larger amounts of penicillin and the additional use of other antimicrobial drugs with broader spectrums may be required.

Since therapy will not actually shorten the illness, even though the course is greatly modified, it must be continued until muscular spasms and rigidity have largely disappeared.

In addition tracheotomy will permit emergency oxygen therapy under intermittent positive pressure, using any of several types of apparatus that are now available.

In some cases a mechanical respirator will be necessary.

P. 225 Ampicillin in a total dose of 6 grams per day given orally in four equal doses for a period of six weeks combined with probenecid will apparently terminate the carrier state in most patients without gallstones and with normal gallbladder function as indicated by cholecystogram.

P. 230 The manifestations of pyelonephritis will be discussed elsewhere.

Actually the urethral canal can never be completely sterilized; thus, there is always the possibility that bacteria will be carried from it into the bladder cavity during catheterization.

A simple methylene-blue stained preparation of a freshly voided specimen will provide some indication of the numbers of organisms present.

In all these procedures the test must be performed on freshly obtained urine or on a sample kept in the refrigerator, since urine will support multiplication of bacteria at room temperature.

P. 238 Many patients with cholera will have a positive serologic test for *V. cholerae* antibodies on the day of onset of disease.

Urine output is an index of hydration if the patient does not have renal failure, and administration of fluids sufficient to restore urine output to normal often will return the plasma specific gravity toward normal.

P. 242 Improvement in living standards is usually associated with spontaneous disappearance of this disease or at least its confinement to sylvatic foci. However, there are many areas where such an evolution is not likely to occur and sylvatic foci will probably always exist.

P. 247 More than 90 per cent of patients with glanders will die from the disease if untreated.

P. 267 If the primary lesion is in the lung, as most frequently it is, respiratory symptoms are not usually present, but a patch of exudative infiltration may be detectable by auscultation and will be demonstrable in the chest roentgenogram.

P. 271 A nontuberculous pneumonia or localized patch of nonspecific pneumonitis usually will clear in a few days to a week, with or without broad-spectrum antimicrobial therapy.

By contrast, a tuberculous lesion, even a very early one, will rarely clear this rapidly even with the most intensive antituberculosis therapy.

P. 282 Usually a return to normal life and to former employment, even to heavy work, may be permitted within two or three months after cavitory closure and the disappearance of tubercle bacilli from the sputum. At least this length of time will be required for convalescence if surgery has been performed.

P. 291 For in a sense, the host defenses against the inflammatory process may become the disease. If the inflammation is permitted to become chronic and to progress to fibrosis, there will be permanent damage to vital functions.

P. 303 Frequently, both skin and complement fixation tests will be negative in a patient with severe active disease.

P. 325 Biopsy may be deferred for a therapeutic trial only if the collateral evidence for the presence of syphilis is strong. It is essential to realize that, if a suspected lesion is an active gumma, it will show evidence of healing within a few weeks of the institution of therapy.

P. 350 Thorough cooking of food and boiling of water will prevent infections when in endemic areas.

P. 403 A dose on two consecutive days will eliminate approximately 95 per cent of the infections.

P. 425 Prompt application of alcohol to the tentacle will inactivate the nematocysts.

P. 507 Prompt and effective treatment of episodes of acute bronchitis will prolong life.

P. 523 Obstruction of smaller bronchi sufficient to cause atelectasis subjects the bronchi to an increased negative pressure that will cause dilatation.

P. 553 The many conflicting claims and counterclaims about the cause of lung cancer will probably not be resolved until prolonged, well-designed clinical epidemiologic studies can be conducted.

P. 559 The present discussion will be limited for the

most part to clear exudates caused by inflammation.

p. 577 When clinical heart failure is present, post-systolic augmentation produced by double pacing will improve the ventricular function curves but will not improve the cardiac output or relieve congestive heart failure.

p. 585 Anything that increases the stroke output of the heart will cause the patient to complain of palpitation unless his attention is centered elsewhere.

p. 591 The maximal load on the circulation occurs before the ninth month and normal delivery is usually both possible and desirable. The mother will need assistance with her usual household duties during and after the pregnancy.

To patients who have not received digitalis, 1.2 mg. of digitoxin can be given orally as a single dose. Because this will overdigitalize a small minority and underdigitalize a considerable number, most physicians prefer to give digitoxin in divided doses.

For this reason, the average maintenance dose given over a long period of time will eventually produce an appreciable digitalis effect.

When the patient is maintained on a constant daily dose of digitalis, the odds are that he will become either over-or underdigitalized.

p. 597 In such a position, the cyanotic child will have a rise in arterial (and systemic venous) saturation; possibly he is quietly practicing a Valsalva maneuver with reflex rise in systemic arterial pressure and simultaneous decrease in abdominal pooling of blood.

Because diastolic pressures in the two ventricles in a patient with a large atrial septal defect tend to equalize, any rise in venous pressure will affect both chambers.

p. 603 The catheter may enter many unusual places as well as the usual, and the operator will be rewarded by his knowledge of possible anomalies, such as a persistent left superior vena cava, an azygos system replacing the inferior vena cava, and anomalously connecting veins.

p. 609 In all probability, with adequate case finding in childhood, the disease as such will become rare in adult cardiologic practice.

In patients who have had repair of the ostium primum type of defect, it is expected that a mitral defect will persist, but the over-all results have been satisfactory.

p. 623 It is likely that both the immediate and long-term results of surgical treatment will improve considerably in the future, and the physician will be able to recommend

operative treatment for selected patients with mitral regurgitation even before they become severely disabled.

P. 627 However, it is likely that as the results of total prosthetic replacement of the aortic valve improve, many of these patients will become candidates for operation before their disease reaches the symptomatic stage.

P. 642 The drug may be taken prophylactically when it is likely that a certain activity or incident will precipitate an attack, preferably within a few minutes preceding it, but its effectiveness may occasionally persist up to 15 minutes.

P. 662 Before these findings can be assumed to have any physiologic or pathologic meaning, it will be necessary to demonstrate the release of such substances into the circulation.

P. 667 Consequently N-H atrioventricular nodal cells will not have reached excitation threshold prior to the activation of atrial and adjacent proximal (N) atrioventricular nodal cells.

P. 675 In general, the more severe the functional impairment, the more likely it is that atrial fibrillation will occur.

Digoxin, 0,5 mg. intravenously, will usually be sufficiently helpful within 30 minutes that further therapy may be given orally.

P. 695 The accompanying findings on physical examination such as pericardial friction rubs or gallop rhythm in myocarditis, and such aids as fluoroscopy will usually be convincing.

P. 713 Dissecting aneurysm, traumatic aneurysm, micotic aneurysm and aneurysms of the sinuses of Valsalva will be discussed separately.

P. 735 Rest, elevation of the extremity and local application of cold will relieve the congestion, hyperthermia and pain.

P. 759 On the other hand, if severe hyperlipemia (or hyperproteinemia) is present, the fraction of plasma that is water will be lower than normal, and a striking reduction in the sodium concentration per unit volume of plasma will be observed despite the absence of a significant change in the electrolyte concentration-per kilogram of plasma water.

If osmotic pressure is normal despite the hyponatremia, it will be evident that the concentration of sodium in the aqueous phase of plasma is normal.

Any hypotonic loss such as that occurring with sweating or vomiting, will cause a modest degree of hypernatremia, which

will persist if adequate fluid replacement is not provided.

In most cases of diabetes insipidus polyuria will quickly draw attention to the nature of the problem, but if solute intake is low, the diagnosis can readily be overlooked since urine volume may not exceed 2 or 3 liters per day.

P. 765 The more prolonged the period during which urine is in contact with the colonic mucosa, the larger will be these exchanges and the greater the compensatory increase in acid excretion that will be required of the kidney.

P. 811 No treatment is known that will alter arteriolar nephrosclerosis.

If the blood urea nitrogen exceeds 50 mg. per 100 ml. and especially if uremic symptoms are present, treatment rarely will be effective.

P. 913 Occasionally evidence of invasion of the duodenal-wall-the "inverted 3" sign of Frostberg - will be noted.

In the presence of obstructive jaundice, percutaneous transhepatic cholangiography will aid in the diagnosis of carcinoma of the head of the pancreas.

P. 939 It has been estimated that 5 to 10 per cent of persons over 40 will develop such diverticula.

Approximately 20 per cent of patients with diverticula will develop diverticulitis.

P. 951 Examination of the blood will disclose a hypochromic microcytic anemia in two thirds of patients.

P. 987 With supportive therapy the patient will be more comfortable and will suffer from fewer complications during this period.

P. 1037 Hemolysis due chiefly to extracorporeal mechanisms is probably more common in patients with neoplasia and will be discussed subsequently.

P. 1045 An individual homozygous for a structural mutation involving one of the polypeptide chains of HbA will produce only a single abnormal adult variety of hemoglobin.

Elevated levels of fetal hemoglobin will often be present in such conditions.

P. 1071 If the physician does his job well, he will have to be spiritual as well as medical adviser before the disease has run its course, and must earn the confidence of both patient and family.

P. 1182 Patients who will later develop overt diabetes

may have elevated plasma lipids while the glucose metabolism remains normal, and women still in the latent phase may bear abnormally heavy children.

It is natural to seek criteria that will permit prediction of the course of the disease.

P. 1219 When dietary treatment is instituted within the first few months of life, there is a fairly good possibility that normal mental development will take place.

P. 1311 If treatment is begun shortly after birth and is maintained without interruption children will usually grow to nearly normal stature and the masculinizing characteristics will disappear.

P. 1334 Such mobile tests do not require therapy and will remain in the scrotum with the advent of puberty.

P. 1355 Careful observation will reveal signs and symptoms similar to those of pheochromocytoma in a significant percentage of patients.

P. 1453 An honest answer, particularly if it can be given along with a description of the plan of treatment that can hold the patient's attention, usually will not increase his distress, but may aid him as he finds in the physician a friend with whom to face the future.

The patients come to depend on the physician as their link with the living, and a failure by the physician to see these patients because "I have nothing further to offer" will add considerable suffering to their final days.

WOULD

P. 1 Osler early in this century quoted Galen as saying, "He cures most successfully in whom the people have the greatest confidence". This long recognized truth is so important that it would seem appropriate to consider, in a brief foreword, some of the qualities of the physician as healer that are as essential to his success as is the scientific knowledge he can gain from textbook or journal.

P. 17 Early vaccines were poorly antigenic and are not commercially available. If products under current investigation are effective and can be licensed, their use among civilians would be recommended only for special groups of persons because of the over-all low incidence of serious adenoviral infections of the respiratory tract.

P. 47 Current research efforts are expected to make available new preparations that would confer protection with

less danger to the recipient.

p. 55 Such cases may justify treatment immediately in a modified way. Possible modifications would be that, following local treatment of the wound as described above, a single close of serum or three doses of vaccine at daily intervals be given and no further vaccine administered as long as the animal stays healthy for 10 days following exposure.

p. 217 For patients who do not respond adequately to treatment with either meprobamate or methocarbamol alone, as would be anticipated in most cases of severe tetanus, chlorpromazine can be used to advantage either intramuscularly or intravenously in doses of approximately 0,5 mg. per kilogram of body weight every four to eight hours.

p. 321 As would be anticipated from the epidemiology of syphilis, the initial lesion usually occurs on the skin or mucous membranes of the genitalia, the perineal region, the lips or the oral cavity.

p. 325 As would be anticipated, the chance of intrauterine transmission is greatest when the infection has been recently acquired and diminishes through successive pregnancies.

p. 597 A spatial arrangement of the two atria wherein gravity would favor left-to-right transatrial shunt is discredited as a factor.

If venous pressure were used as a yardstick of myocardial failure, the conclusion would be reached that both ventricles had failed, perhaps the left being mainly at fault.

p. 881 If small peptides gained access to the cell, it is almost certain that they would be rapidly split into their component amino acids.

p. 1392 As this information developed, there was difficulty in visualizing the role that rheumatoid factor itself would appear to play in the development of the symptoms and lesions of rheumatoid arthritis.

SHOULD

p. 1 This communication must be in both directions, as much from the doctor to the patient, as the reverse, and it should be on as many levels as is mutually possible.

The doctor who must force himself to listen to patients or finds himself indifferent to suffering should transfer to a branch of medicine that does not involve personal relationships with the sick.

The physician should be careful not to give too much of himself emotionally or he will be in danger of losing his objectivity and, perhaps, his poise.

P. 13 The hygienic collection and disposal of respiratory secretions to reduce air-borne dissemination from coughing and sneezing should be encouraged as common courtesies.

P. 25 Diet may be regulated by the patient with the warning that high fat food are not well tolerated. Fluids should be given in abundance.

P. 31 Diagnosis is generally made by a diagnostic rise in complement-fixing antibodies against a heat-stable group antigen prepared from psittacosis virus grown in eggs. Paired acute and convalescent should always be tested.

The syndrome of viral pneumonia accompanied by protracted high fever, unusually severe headache and relative bradycardia should suggest psittacosis.

Tetracycline treatment should be continued for at least 10 days.

P. 39 In the prodromal period the diagnosis should be suggested by (1) fever higher than that of the usual common cold, (2) known measles in the community and (3) Koplik's spots on the buccal mucosa.

P. 47 As medical contraindications to vaccination are more sharply defined, they should be accepted as legal justifications for nonvaccination.

When travel outside the limits of the United States to nonendemic areas is contemplated by a person who has as absolute contraindication such as the neoplastic diseases mentioned above a written statement from a physician indicating why vaccination should not be performed will be considered on return to the United States by the Quarantine Service of the United States Public Health Service.

If such a person must travel to an endemic area the use of vaccinia-immune gamma globulin or chemoprophylaxis with N-methylisatin beta-thiosemi-carbazone should be considered so as to provide temporary protection and act as a substitute for the use of vaccination with live vaccinia virus.

However in such cases in endemic areas, re-vaccination should be performed after an interval of six months.

P. 76 None of the antimicrobial drugs appears to influence the severity or the duration of herpangina. Symptomatic treatment is often efficacious and should be used when indicated.

P. 89 The first test should be negative and the second

positive.

There is no disease in the United States with which typical Colorado tick fever should be confused except dengue.

p. 93 The important recent history should establish this possibility.

In those cases that are refractory to antimalarial therapy, attempts should be made to isolate virus from blood during the acute phase of the illness.

Material collected should therefore be obtained in sufficient quantity at the most appropriate time, and should be properly documented and carefully handled.

p. 97 An acute serum specimen should be obtained immediately on suspicion of a diagnosis of EEE.

Serial sera should be collected every few days subsequently.

p. 109 There is no specific treatment. A patient should be moved as little as possible and should be kept quiet in bed.

Heroic efforts to get a patient from some remote area to a district hospital should be discouraged.

The heart should be watched carefully throughout the illness and into early convalescence.

Water should be given in adequate amounts, parenterally if necessary.

Easily assimilated food should be given to the extent that the patient will tolerate.

Full activity should be resumed only gradually.

p. 132 The clinical diagnosis of Brill-Zinsser disease should be considered when a fever of unknown origins occurs in a patient who has lived at some previous time in an area where typhus fever occurs in epidemic form and who complains of an intense persistent headache; a macular or maculopapular rash is very helpful in diagnosis, but cases of Brill-Zinsser disease may not show a rash.

The laboratory diagnosis should be made by the complement-fixation test or the rickettsial agglutination-test).

p. 145 The pH of the medium should be approximately 7.5.

p. 153 During the course of the disease the patient should be examined carefully once a day.

The common complications of pneumococcal pneumonia should be specifically looked for during each examination, particularly when fever persists.

Whenever pleural effusion is detected in a patient who has failed to respond promptly to treatment, a thoracentesis should be performed in order to determine whether the fluid is infected and thus represents an early empyema.

Samples of the fluid obtained should be examined directly with bacterial stains and cultured both aerobically and anaerobically.

However, it should be remembered that pneumococcal mutants resistant to tetracyclines have recently been encountered in patients with pneumococcal pneumonia.

Erythromycin is about as effective as penicillin or the tetracyclines in pneumococcal pneumonia and should be used. (0,3 to 0,5 gram every six hours). When the lesion is suspected of harboring penicillin-resistant staphylococci.

Patients suffering from pneumococcal pneumonia should be kept at bed rest, and visitors to the sick room should be limited to the immediate family.

Dispnea and cyanosis should be treated with oxygen, administered by tent (40 to 60 per cent oxygen) or by nasal catheter (35 to 50 per cent oxygen, when gas is delivered at 4 to 7 liters per minute).

When hydration is adequate, the specific gravity should remain below 1.020.

Many patients with pneumococcal pneumonia are too ill to tolerate a full diet and should receive only liquids during the height of the fever.

The patient should be kept in bed until the temperature is approximately normal and should be observed closely until the pneumonic lesion has resolved.

As already emphasized, all patients should be subjected to a follow-up roentgenographic examination three to four weeks after recovery.

The prognosis is almost invariably grave when this complication develops. Oxygen therapy should be begun immediately, even if cyanosis is absent.

It should be given continuously by intravenous drip in sufficient amounts to maintain the systolic pressure at levels between 100 and 110.

These measures should be used only with the greatest caution if signs of congestive heart failure are also present.

The prostegmin injections should be repeated every hour until a definite effect is obtained; subsequent doses should be spaced at intervals of two to four hours and maintained as long as necessary.

P. 161 If there is doubt on these points, the patient's initial treatment should be chosen to be appropriate for either *Klebsiella pneumonia* or pneumococcal pneumonia until laboratory consultation is possible.

Antimicrobial therapy consisting of both streptomycin and either chloramphenicol or a tetracycline should be instituted at the earliest moment.

The streptomycin should be given in a total daily dosage of 2.0 grams administered intramuscularly in two equally spaced doses.

P. 165 The presence of either of these manifestations should suggest a different cause. Rhinorrhea does occur especially in young children, who frequently develop suppurative sinusitis.

P. 169 Patients with more serious streptococcal infections, such as streptococcal pneumonia, severe wound infections with sepsis or suppurative complications of ordinary respiratory infection, should receive 600,000 units of procaine penicillin G per day intramuscularly for several days until the illness is well controlled, when a shift to a single dose of benzathine penicillin or to oral penicillin may be made.

P. 173 It should be emphasized that rheumatic fever can occur without any evidence of joint involvement whatever.

P. 181 In most infections, especially if the patient is seriously ill, cultures should be made of the exudate or of the anterior nares if exudate is not available.

Within the hospital, every effort should be made to prevent the spread of staphylococcal infections.

A patient with such an infection should be isolated for protection of personnel and other patients.

The indiscriminate use of antimicrobial drugs in the hospital should be avoided, since drug-resistant strains are maintained and are more readily transmitted to other drug-treated patients by such practices.

P. 185 Treatment should be continued for a minimal period of three weeks.

In addition to these measures, the fluid balance should be maintained, and severe degrees of anemia should be corrected by blood transfusion.

The antimicrobial drugs, in the amounts already indicated, should be administered before and after operation.

For this reason every effort should be made to locate the portal of entry of the staphylococci in patients with pneumonia and bacteremia.

Endocarditis should be suspected when there are cardiac murmurs that change in character or when bacteremia persists in the absence of an obvious extracardiac focus.

The history of a preceding staphylococcal infection in a patient with intermittent fever should suggest the diagnosis of staphylococcal bacteremia.

Penicillin, in a dose of 18 million units administered intravenously over a 24 hour period, should be given if the organism is susceptible.

Patients sensitive to penicillin should be treated with cephalothin or lincomycin in maximal doses.

Blood transfusions should be employed for those with anemia.

p. 189 Urethritis should subside within two to three days after administration of penicillin.

If relapse occurs, the patient should be re-treated with double the original dose of penicillin over a period of one to two days.

Patients with gonococcal prostatitis, seminal vesiculitis, epididymitis, salpingitis or arthritis should be treated with bed rest and 4.8 million units of procaine penicillin intramuscularly each day for seven to ten days (two weeks for arthritis) or longer until signs of infection have subsided and cultures become negative.

In gonococcal arthritis, pus should be aspirated by needle when possible, but occasionally surgical drainage of the points becomes necessary.

Physiotherapy should be started during the period of convalescence to promote return of function of the joint.

For gonococcal endocarditis or meningitis, 20 million units of aqueous penicillin G should be administered parenterally each day (four to six weeks for endocarditis and two weeks for meningitis).

Therefore, serologic tests for syphilis should be performed for all patients treated for gonococcal infections prior to therapy and periodically until six months after therapy.

Sexual partners of patients with gonorrhea should be identified and treated as quickly as possible to prevent further spread of disease.

p. 197 Should fever or signs of meningeal irritation recur, the most probable causes are recurrence of infection with the meningococcus, drug fever or infection due to another organism.

Examinations of the cerebrospinal fluid and blood should be

repeated.

If meningococcal infection has recurred the same treatment should again be instituted.

Even then, the procedure should be carefully monitored by examination of the strains isolated from patients, since it seems likely that mass administration of sulfonamides may eliminate the susceptible meningococci in the population (especially if it is a closed one, such as on a military post or in an institution) and permit resistant strains to become dominant in which case mass administration of sulfonamides should be discontinued.

P. 197 In fact when it occurs in adults, a parameningeal focus or deficiency in immune globulins should be suspected.

P. 201 Antimicrobials are the mainstay of therapy in bacterial meningitis and should be administered parenterally at the earliest possible moment.

Primary staphylococcal meningitis would be rare in a previously healthy adult, but should be considered in a long-hospitalized patient, particularly if neurosurgery has been performed.

Penicillin is the drug of choice for pneumococcal and meningococcal meningitis and should be administered parenterally in a dosage of 10 to 20 million units a day.

Polymixin B should be given in approximately one half the dose of colistin.

The cerebrospinal fluid should be examined every 24 or 48 hours during the early days of therapy, but once the patient is recovering, the intervals between lumbar puncture may be as long as a week, and numerous examinations of the CSF are rarely necessary.

In the absence of antimicrobial therapy should suffice.

They should never be used unless the etiologic organism has been clearly identified and the appropriate drug is being administered.

Sedation should be employed with cautions, even for delirious patients; of the many agents available, paraldehyde continues to be safe and effective.

P. 205 It should also be remembered that incidence of whooping cough in those over 10 years of age has not changed despite the general use of vaccine.

Nevertheless in infants with a personal or family history of convulsions or other neurologic disorders, pertussis immunization should be deferred or very small doses should be cautiously administered.

Care should also be exercised in the immunization of children with a family history of an allergic diathesis.

The diagnosis can be established only by appropriate microbiologic techniques and these should be employed whenever the physician encounters a genital lesion (or an indolent ulceration elsewhere) that is not clearly caused by some other process.

In a relatively old lesion, the scrapings should be made from the depth of the lesion, and an extensive search of the smears may be necessary.

p. 209 Antitoxin should be administered as soon as diphtheria is suspected on clinical grounds without waiting for confirmation from the laboratory.

The total dose required should be administered at one time if possible.

The subcutaneous route should not be used, since absorption is relatively slow.

As diphtheria antitoxin is a foreign protein (horse serum), precautions should be observed against the occurrence of hypersensitivity reactions, i. e., anaphylaxis.

p. 213 Gas gangrene antitoxin is of no value in prevention, nor should any reliance be placed on antimicrobial drugs.

In the handling of surgical patients tourniquets should be used cautiously, and bandages or plaster casts must be applied carefully so as to avoid interference with the circulation.

p. 217 Penicillin should also be given, since it has been shown to eliminate *C. tetani* rapidly in most, but not all cases; it also aids in controlling secondary wound infections and serves as a prophylactic agent against the otherwise common complication of pneumonia.

Patients who continue to have seizures despite the combined use of chlorpromazine with either of the muscle-relaxing agents should be given secobarbital, pentobarbital or sodium phenobarbital by intramuscular or intravenous injection so as to enhance the sedative-relaxant effect and induce amnesia.

Cumulative experience has indicated more and more that early tracheotomy should be performed in severe cases in order to circumvent the problem created by laryngeal spasm and to permit the easy use of tracheal suction for removing secretions.

In severe cases with the patient under heavy sedation, a nasogastric tube may be inserted for feeding, but it should be borne in mind that the use of muscle-relaxant drugs also may cause relaxation of the cardiac sphincter producing a tendency to regurgitation.

Intravenous fluids containing glucose, balanced electrolytes and amino acids should be used as in any situation in which prolonged parenteral alimentation is required, and periodic chemical examinations of the blood should be carried out to aid in guiding this phase of therapy.

P, 221 Anaerobic streptococcal infections should be treated with benzyl penicillin (penicillin B), tetracycline or chloramphenicol.

Anaerobic streptococci are relatively resistant to penicillin and, if this drug is used, it should be administered parenterally in doses of 6 million or more units per day.

Penicillin, tetracycline and chloramphenicol alone are not active against all strains; in life-threatening infections, penicillin plus tetracycline or chloramphenicol should be used.

Severe cases of gingivitis or pharyngitis should be treated with procaine penicillin, 600,000 units daily intramuscularly, or tetracycline, about 20 mg. per kilogram per day orally, for one week.

The vast majority of serotypes are capable of producing disease in animals and man and should be considered as primary pathogens of animals that are readily transmitted to man.

P, 225 Chloramphenicol has not been shown to be effective in the treatment of the chronic carrier state and should not be used in this situation.

Immunization should be considered for inhabitants of areas where the incidence of the disease is high, travelers to these areas and persons working with *S. typhosa*.

Patients with typhoid fever should remain in isolation during hospitalization.

Persons known to be carriers should not be permitted to work as food handlers, and members of their households should be immunized against the disease.

P, 234 They are given by intramuscular injection, and the dose should not exceed 1 gram per day.

The duration of antimicrobial treatment should be at least seven to ten days.

Drug susceptibility tests are indispensable in deciding which should be used.

P, 238 This volume of fluid should be given promptly as isotonic (0.85 per cent) sodium chloride and one sixth normal sodium lactate or 2 per cent sodium bicarbonate in a ratio of 2 or 3 to 1 by volume, administered intravenously.

After initial hydration, the fecal loss measured hourly, should

be replaced volume for volume with the same saline and alkali combination as given initially.

P. 242 Streptomycin should be administered parenterally at the rate of 4 grams daily for two days followed by 8 to 10 grams given over a period of five additional days.

Chloramphenicol should be administered at the rate of 6 to 8 grams daily for the first 48 hours followed by 3 grams (50 to 75 mg per kilogram) daily for a total dosage of 20 to 25 grams.

Chloramphenicol should be given intravenously and orally during the first 24 hours of therapy if the latter route of administration is feasible.

Tetracyclines should be administered in a similar manner, large doses (4 to 6 grams daily) being given during the first 48 hours of therapy.

Intravenous therapy during the 24 hours is mandatory in severely ill patients but should be supplemented by oral administration of the drug if this is tolerated by the patient.

P. 251 The isolation of microorganisms resembling diphtheroids from infectious material or blood should alert one to the necessity for further bacteriologic characterization.

P. 267 This risk is particularly high when the primary infection occurs in infancy and is the reason why cases of primary infection diagnosed in the pre-school child should be given specific therapy in adequate dosage and of sufficient duration, even though the evidence is only a skin reaction to tuberculin.

This should be continued without interruption for one year.

The duration of the therapy in such instances usually should be more than one year, the optimal duration varying according to the extent and gravity of the clinical form of disease in the individual case.

P. 278 In others, the response is less good, but not to the extent that treatment should not be maintained and pursued vigorously.

P. 286 Excision of the nodes or incision of a tuberculous abscess, in the neck or elsewhere, must always be followed by specific drug therapy. This should be continued, as should conservative drug therapy when it alone is employed, for as long as in any other form of tuberculosis, i. e., two or three years.

P. 291 Consequently, isoniazid and daily streptomycin should be given in all cases, and corticosteroids in all but the earliest stages of the disease.

If there is any evidence of cerebrospinal block or a history of

symptoms of more than seven days' duration, especially with stupor or coma, the hormone therapy should be added.

The dosage of isoniazid for adults should be 10 mg. per kilogram per day for at least the first three or four weeks.

If the 10 mg. per kilogram dosage is continued longer, pyridoxine should be added in dosage of 25 to 50 mg twice daily.

Streptomycin should be given intramuscularly to adults in the usual single daily dose of 1.0 gram.

This usually should be continued on a daily basis for to six months or until all cerebrospinal fluid changes have returned to normal.

p. 291 The total duration of isoniazid therapy should be, as usual two or three years.

The initial corticosteroid dosage should be prednisone, 80 mg. per day in four equally divided doses, or its equivalent.

Intrathecal therapy is rarely necessary. Streptomycin should not be given intrathecally because of the high risk of total deafness from drug toxicity.

p. 303 In suspected cases of acute primary disease both sputum and urine should be cultured.

Dosage should be increased daily by increments of 5 to 10 mg. until approximately 1.0 mg. per kilogram daily or 1.5 mg. per kilogram every other day is achieved.

Each infusion should be administered over a two-to six-hour period.

Although some patients have responded to less of the drug, treatment should continue for two to three months and until about 2 grams have been administered.

Undesired side-effects of local thrombophlebitis, fever, chills, nausea, vomiting, anorexia, rise in serum urea nitrogen, hypokalemia and anemia occur in approximately 80 per cent of the patients but should not require abandonment of the therapy.

p. 311 Treatment should be prolonged one to two months beyond the time of apparent healing.

p. 325 Unless definite symptomatic improvement appears within a four-week period, therapeutic trial should be discontinued and a biopsy performed.

Therefore, a therapeutic test should not be attempted until an effort has been made to exclude the presence of these more serious diseases.

Therefore, even in a patient known to have syphilis, the physician should be slow to accept the diagnosis of gumma in a site of infrequent involvement until the possibility of neoplasm has been excluded (by biopsy or surgical exploration if necessary).

P. 332 Ophthalmologic tests should be consulted for a discussion of interstitial keratitis.

P. 338 Children under ten years of age should be given half of these doses.

P. 359 The judgement of the attending physician should be guided not only by the symptoms of the disease but also by the results of frequent blood examinations including parasite counts and hematologic data.

Irrespective of the species of the parasite, any severe malaria infection with cerebral symptoms, vomiting, pronounced nausea or defective absorption from the gastrointestinal tract requires parenteral administration of a rapidly acting antimalarial. Falciparum malaria, when over 5 per cent of erythrocytes are infected, even though clinical symptoms may not be very alarming, should always be treated as a medical emergency and preferably the patient should be transferred to the hospital for dealing with any "pernicious" complications that may develop with dramatic suddenness.

The consensus of past experience is that quinine should be withheld if there is any evidence of intravascular hemolysis.

It should be injected very slowly (at least 10 minutes) or preferably, given as an intravenous drip in 0.5 liter of plasma or physiologic saline with glucose.

This may be repeated if necessary, after 6 to 8 hours. The dose of 2000 mg. over 24 hours should not be exceeded.

This can be repeated, if necessary, after eight hours but the parenteral dose of 800 mg of chloroquine base over 24 hours should not be exceeded.

The total adult dosage over 24 hours should not exceed 2000 mg.

P. 376 The drug is relatively unstable in solution and should be given only when freshly prepared with sterile distilled water.

The solution should not be boiled or heated and should be used as soon as possible.

A total of 5.0 grams of ethylstibamine should be administered to patients as initial treatment or in relapse following treatment with other drugs or following relapse from total amounts of ethylstibamine of less than 5.0 grams.

If untoward effects appear, the drug should be given on

alternate days, the dosage should be reduced, or administration should be stopped, as the circumstances indicate.

P. 380 To prevent these serious complications, intensive treatment with ethylstibamine intravenously should be instituted at the earliest possible moment.

Treatment should be continued until apparent cure is obtained, and the patient should be observed for an additional period.

P. 388 Bithionol, a compound developed in Japan, appears to be effective. Ectopic flukes should be removed surgically.

P. 425 If alcohol is not available, the tentacles should be covered with sugar salt or dry sand and left alone 15 to 20 minutes before being scraped off.

P. 449 The clinician who studies these problems should develop the habit of regarding the connective tissue as a whole if the diverse body of information that is accumulating is to be efficiently and usefully synthesized.

P. 484 Trauma should be avoided.

P. 499 The room air should be warm and humid; the use of steam inhalation may be helpful.

A sedative should be given at bedtime if the patient has difficulty in sleeping.

P. 513 If an injection produces a constitutional reaction, the next dose should not exceed one half the dose producing the reaction and should not be given sooner than one week later.

Subsequent increases should be about one half as large as those listed in the schedules, with careful observation of the local reaction each time.

If it becomes apparent that the patient cannot tolerate a larger dose, the schedule should be abandoned and treatment continued with a dose one quarter to one third less than that which produces an excessive reaction.

Infections of the respiratory system believed to be causative factors in asthma should be treated vigorously with available medical and surgical measures.

It should be noted that asthmatic patients are particularly susceptible to severe penicillin reactions and care should be observed in its use.

Adequate drainage of infected paranasal sinuses should be maintained by local treatment, with excision of nasal polyps if necessary.

Immunization with influenza vaccine should be done each year.

If the concentrated vaccine is 1 per cent by volume or approximately 5 billion organisms per cubic centimeter, the first dose should not exceed 0.1 ml. of a 1:1000 dilution, and subsequent doses at weekly intervals may be gradually increased up to 0.1 to 0.2 ml. of the concentrated material in a manner similar to that employed for pollen antigens.

p. 559 When the fluid is a transudate, the case should be sought in the heart, kidney, liver or ovary.

When a exudate (particularly if blood) occurs in congestive heart failure, a complicating pulmonary infection should be suspected.

An attempt to remove all the fluid should be made only when its presence produces dispnea.

p. 609 Despite the ease with which an atrial septal defect should be diagnosed, it may be readily mistaken for rheumatic valvular disease in middle-aged and elderly adults.

p. 627 Seriously ill patients should be treated either with beta-adrenergic receptor blocking agents or surgical incision of the hypertrophied outflow tract.

p. 631 Patients with syphilitic aortitis should receive a full course of penicillin therapy.

Surgical treatment should be considered only for patients who have free aortic regurgitation and who are symptomatic on ordinary activity in spite of maximal medical therapy.

p. 642 If the pain is not prevented, another tablet should be taken when the pain occurs.

Therefore, the administration of radioiodine should be reserved for occasional truly intractable cases.

p. 650 However, with this caution, it should be stressed that the pain is severe and may be intractable and that drug and dosage should be employed that are effective in affording relief.

If it is apparent that the pain is extremely intense or if meperidine is ineffective, the patient should be given morphine sulfate, 10 to 20 mg. (1/6 to 1/3 grain) hypodermically.

Repetition of the medication should be ordered by the physician as needed; standing orders for opiates in acute myocardial infarction may be dangerous.

p. 681 The blood pressure should be followed carefully during intravenous procaine amide therapy.

Quinidine in full therapeutic doses (see Atrial Paroxysmal Tachycardia) is an alternative to procaine amide and should be used if there is reasonable suspicion that the arrhythmia is

supraventricular with aberrant ventricular conduction rather than ventricular in origin.

If possible, an external pacemaker and a defibrillator should be available to meet this emergency.

p. 695 A tachycardia out of proportion to fever and other general signs should direct attention to the possible presence of intercurrent myocarditis.

p. 700 Special mention should be made of the cardiac form of glycogen storage disease (glycogenosis).

p. 717 Repeat roentgenograms of the chest should be made in such cases in order to detect the appearance of aortic aneurysm, which may become visible in a few weeks.

p. 723 When severe left ventricular hypertrophy is found, an associated lesion, such as aortic stenosis, should be considered.

Medical therapy should be vigorous.

p. 728 Prothrombin depressing agents should not be administered to patients with severe liver disease or to those with advanced renal insufficiency or to patients exhibiting any hemorrhagic diathesis.

In elderly patients atherosclerosis is unquestionably the leading cause of ischemic peripheral vascular disease of the extremities and should be considered whenever such a case appears.

p. 833 Patients with recurrent pyelonephritis related to postural fatigue accompanied by ureteral kinking may occasionally benefit from nephropexy, but the uncomplicated nephroptotic kidney should not be subjected to surgery or used as a psychosomatic crutch.

As a cardinal principle, the presence of two kidneys should be established before doing any instrumentation or surgical procedure.

p. 863 It should be noted in the table on hydrochloric acid secretion that the output of acid in this condition is enormous, i. e., two to three times the amount secreted by patients with duodenal ulcer.

p. 899 The desperately ill patient should be given both corticotrophin intravenously, 40 units daily, and parenteral antimicrobial agents until the condition permits withdrawal of the former agent.

Tuberculous involvement of the mesenteric lymph nodes should be treated by chemotherapy, as outlined in the article on Non-pulmonary Forms of Tuberculosis.

p. 939 Water-absorbing colloids should be used to spread the walls of the colon in order to diminish the higher pressures in the short, contracted sigmoid segments.

Fluid and electrolyte needs should be maintained parenterally, and meperidine rather than morphine should be given for severe pain.

If the acute process subsides without any residual sequelae the patient should be placed on a regimen designed to obviate constipation and colonic spasm.

p. 977 If viral hepatitis is considered to be a likely diagnosis in patients with obstructive jaundice, surgical exploration of the extrahepatic biliary system should be deferred, and a needle biopsy of the liver should be performed.

p. 987 A needle biopsy of the liver should be performed to establish the diagnosis of granulomatous disease.

This lesion should be suspected whenever a cirrhotic patient exhibits unexplained clinical deterioration with enlarging liver, right upper quadrant pain or sudden onset of ascites.

p. 1013 Pernicious anemia should be thought of in any patient with megaloblastic anemia (or with the premegaloblastic blood changes described), particularly if the patient is over 40 years of age.

To be fully accepted, such a "therapeutic trial" should be preceded by a control period of a week or 10 days during which reticulocyte levels remain fairly steady and low and hemoglobin levels neither rise nor fall sharply.

p. 1071 Any desire for consultation should be encouraged, but the consultant should be of sufficient stature to provide the needed reassurance and to protect the family from the natural impulse to engage in a desperate search of help.

p. 1079 Many students of hematology, stimulated largely by Dameshek, have become attracted to the idea that polycythemia vera, myelofibrosis with myeloid metaplasia, acute and chronic myelocytic leukemia, primary or essential thrombocythemia and the Di Guglielmo syndrome should all be classified as myeloproliferative disorders.

p. 1113 This should be administered continuously at a dosage level of 8 to 10 mg. daily.

p. 1125 Concentrations of vitamin C should be assayed in scurvy.

p. 1219 The diagnosis of phenylketonuria should be confirmed by demonstration of a high blood phenylalanine level.

Dietary treatment should be individually adapted to each patient, some patients being able to metabolize larger amounts

of phenylalanine than others.

Particular attention should be paid to the possibility of phenylalanine depletion with consequent loss of weight and eventual rise in phenylalanine blood level due to breaking down of body proteins.

Treatment, if successful should be continued for several years.

P. 1310 The dose selected should be enough to prevent stimulation of the adrenal with endogenous corticotropin.

Such patients should therefore be treated throughout as though they had adrenal insufficiency.

If abnormal development of the genital tract has occurred, plastic surgery should be undertaken at an early age.

The congenital form rarely appears for the first time in adult life, and tumour should invariably be suspected when masculinization appears in an adult woman.

P. 1335 These should be controlled with single intravenous doses of Regitine, 1 to 5 mg.

Primary reliance should be placed on expansion of intravascular volume with 500 to 1500 ml. of blood (beyond replacement needs), plasma or 5 per cent albumin in iso-osmotic solution (Albumisol), to counteract the severe drop in blood pressure that follows interruptions of the tumor's venous drainage.

P. 1417 Osteochondroma acting as a cartilaginous rest, may cause symptoms similar to those of derangement, and should be removed.

P. 1453 Therefore, lethal instruments, drugs or open windows should not be accessible to the patient.

Since physical discomfort is an important cause of depression, a meticulous effort to keep the patient free of pain should always be made.

P. 1483 Although vertigo is common to a multitude of illnesses, a careful history and a thorough general otologic and neurologic examination should elucidate the cause in most cases.

P. 1501 If drugs are required, 4 to 8 ml. of paraldehyde or 10 mg. of chlorpromazine are suitable, but even these small amounts should be avoided if the blood alcohol level is over 250 mg. per 100 ml.

Patients in stupor or coma should be handled as emergencies and should be closely monitored.

P. 1521 It should be emphasized that although a lesion may be congenital, its clinical manifestations may not become

evident until adult life.

P, 1564 Patients with transient ischemic attacks, progressing strokes or established strokes who also have hypertension should be treated with antihypertensive medication.

Hypertension, depending on its severity, should be continuously treated with reserpine, chlorothiazide or hexamethonium and the blood pressure should be maintained as nearly possible as possible.

P, 1580 In Central and South America and parts of Europe and Asia cerebral cysticercosis (usually solitary cysts containing the larval form of the pork tapeworm *taenia solium*) should be considered in patients presenting with symptoms of brain tumor.

CANCER TREATMENT REPORTS, BETHESDA, v. 66, n. 3, MARCH 1982,
p. 417 - 599.

WILL

p. 417 The potential benefits of withholding initial therapy are severalfold: (a) the patient may experience a prolonged treatment - free interval; (b) during this interval, the lymphoma will not be exposed to agents which might select for drug resistance.

p. 421 This has not been confirmed by other investigators (5), and thus for the remainder of this discussion I will take the position that NM lymphoma lacks clear evidence of curability.

p. 439 It is assumed that the development of a doubly resistant tumor cell (i. e., a phenotype that is resistant to both arms of an alternating regimen) will result in incurability of the tumor.

Thus, strategies that will minimize the risk can be expected to be the most effective.

By means of a mathematical development and a computer program that simulates the process of doubly resistant cells appearing during treatment, it can be demonstrated that alternating the treatment regimen at every cycle will be the most effective strategy for a wide variety of cases.

p. 439 Because of the probabilistic nature of the process, there will be no unique value for the proportion of resistant cells in a family of tumors of a given size.

That is, depending on whether the first mutations occur relatively early or late in the growth of the tumor, there will be a range of possible values for the size of the resistant fraction. There will also be a finite probability of there being no resistant cells present, and the value of this probability will be related to the mutation rate and inversely related to the size of the tumor.

p. 443 This will only have occurred if no doubly resistant cells have emerged.

Thus, there is a 14% probability that the tumor will have been eradicated and the therapy successful.

But this tactic is superior to the previous strategies since there is now a 37% probability that the tumor will have been eradicated.

P. 464 If tumor size is related to response rate and prognosis, the number of patients with a small tumor in a study will influence the observed results.

P. 504 This factor, in addition to differences in bone marrow reserve, will determine the clinical marrow tolerance and the ability to predict it from preclinical toxicologic studies.

P. 508 The findings emphasize that the effect of a drug on cell function will vary with the use of different particles.

P. 526 To confirm the effectiveness of liposome - entrapped drug therapy in prolonging survival, it will be necessary to establish a model of lymph node metastasis in which the primary tumor is removed prior to the development of lung metastasis.

It will also be necessary to examine factors influencing lymphatic absorption of liposomes and to evaluate the relationship between those physical characteristics of liposomes (eg, lipid composition) which may affect their stability, permeability, and in vivo effectiveness.

WOULD

P. 429 5 - FU is occasionally active in islet cell tumors (24,48). The lack of overlapping toxicity between 5 - FU and STZ, and their individual activity, suggested that combining them would be useful.

P. 433 Vomiting is the most noxious side effect for patients and frequently causes them to refuse further STZ treatment. Exploration of means of reducing emesis would be particularly useful for this drug.

P. 439 In this paper we present an argument based on theoretic considerations which indicates that provided certain conditions are met, alternating chemotherapy at every cycle would be expected to be a more effective strategy to adopt.

P. 443 This suggests that changing the treatments at this point would result in a greater therapeutic effect than persisting with the five courses of treatment 1.

P. 530 This procedure allows the determination of DNA content within individual cells which can then be used to infer their position within the cell cycle; i. e., a 2N content would be indicative of a cell in G_1 or G_0 , whereas a 4N content would be indicative of a cell within the G_2 or mitotic compartment.

P. 575 In the present report, we attempted to determine

if the combination of intra-tumor bleomycin and systemically administered BCNU would improve the survival of rats bearing intracerebral 9L tumors compared to the survival of rats treated with these agents singly.

SHALL

p. 421 The thesis of this paper is that combined - modality treatment has the greatest potential for curing advanced non-Hodgkin's lymphoma of favorable subtypes. Toward that thesis, I shall review the results of the various approaches to treatment, with emphasis on curative potential.

SHOULD

p. 425 Since most patients have stage IV disease at presentation, emphasis should be placed on documenting a pathologic complete response to the initial chemotherapy (especially in bone marrow) prior to wide - field irradiation.

p. 460 The possibility of a drug - induced severe HUS leading to irreversible renal disease should be considered as more patients are treated with this agent.

The period of observation for renal dysfunction should include not only the time during drug administration but also a significant period following discontinuation of treatment.

p. 489 Treatment with this combined program may allow conservative management of squamous cell carcinoma of the anal canal and should be considered as an alternative to abdominoperineal resection.

p. 492 The need for early abdominoperineal resection for the management of squamous cell carcinoma of the anal canal should now be questioned.

Consideration should be given to deferring such surgery until after a trial of treatment with radical radiation therapy 5-FU, and mitomycin which might preserve normal anal anatomy and function.

CANCER TREATMENT REPORTS, BETHESDA, v. 66, n. 5, MAY 1932,
 p. 1073 - 1250

WILL

p. 1073 To date, save for the isogenic marrow transplants, these approaches have met with little success. We will discuss possible reasons for these disappointing results.

p. 1077 It almost seems as if the years-to-decade time frame of a chronic process provides a setting in which Murphy's law goes on a rampage. Anything that can change will change, thereby upsetting the controls necessary for efficient investigation.

p. 1085 When prognostic factors are really well-understood, reliable randomized studies will require very few patients.

To the extent that the postrandomized consent design is associated with an increased number of patients refusing the treatment, the problems of analysis and interpretation will be more severe.

Under these conditions, a significance test comparing the treatment groups as randomized will indicate that the intensive treatment policy is preferable for the mixed sample.

p. 1089 Various studies of cancer will be considered.

Two examples of clinical trials evaluating the protected environment (PE) in the treatment of acute leukemia patients will be given: the first (4), non-randomized, indicated the effectiveness of the PE, and the second (5), randomized, confirmed the earlier results.

p. 1097 Note that with a value of $\theta = 0.10$ and sample sizes > 300 , the ratio of false - positives to true - positives is approximately 10%, i. e., for every ten true - positive treatments in the clinic, there will be one false - positive treatment.

To these two recommendations, we can add a third:

(c) all positive results should be independently confirmed. This will lower the false - positive rate and raise the true - positive rate.

Often physicians are unwilling to participate in such studies because they do not wish to inform the patient that the treatment will be chosen by a chance mechanism.

Problems of stratification will not be discussed as this will

detract from the main conceptual issues.

The discussion will be simplified to include only a comparison of two treatments that will be designated A and B.

p. 1217 A starting dose of 50 mg/m²/day x 5 days every 3 - 4 weeks is indicated in patients with good performance status. Gastrointestinal toxicity will cause patients to refuse treatment at higher doses in an appreciable percentage of courses.

p. 1250 This course, sponsored by the New England Epidemiology Institute, will be held at the Ritz - Carlton Hotel in Chicago. Drs. Philip Cole and Kenneth Rothman will present modern concepts in epidemiology and their applications, to the study of etiology, natural history of disease, and strategies in preventive medicine and public health.

The application of these techniques to research problems and disease preventions will be illustrated by examples from the medical literature.

Students will learn the criteria by which epidemiologic studies of various types are assessed.

WOULD

p. 1073 Given the good correlation between in vitro drug sensitivity as measured in this assay system and the outcome of remission induction therapy for AML (2), these data suggest that treatment with cytarabine and/or an anthracycline antibiotic would probably have little effect on the Ph¹-containing cells of these patients.

p. 1081 For instance, patients can be randomly partitioned into groups to repetitively test associations. Comparable findings in these independent groups would, of course, strengthen the confidence in the observed comparison.

p. 1085 This would be an inappropriate conclusion and proper interpretation of results may be very difficult to determine.

Under these conditions, a significance test comparing the treatment groups as randomized will indicate that the intensive treatment policy is preferable for the mixed sample. This would be an inappropriate conclusion and proper interpretation of results may be very difficult to determine.

p. 1097 (Conceptually, to achieve a value of $\beta = 1.0$, an infinite number of patients would be required).

If, indeed, the prior probability of success was that high,

then a large number of new therapies with substantial patient benefit would be adopted.

If one increased the number of patients the true-positive rate would be raised.

p. 1097 In the US, the regulations are very specific about requiring consent whenever the patient would be at increased risk because of deviations from normal or standard practice.

Suppose that treatment A is the best standard treatment and B represents an experimental treatment. Treatment A is what a patient would expect to receive under normal circumstances.

p. 1157 Whether or not the acute cardiotoxicity observed in rabbits from the National Cancer Institute (NCI) study is related to the chronic cardiotoxicity observed in patients treated with anthracyclines requires further investigation. Possibly, a study in rabbits given lower doses of NSC 299195 for > 6 weeks might provide a more suitable animal model for anthracycline - like chronic cardiotoxicity. The design of such a study would allow for adequate survival of animals in the absence of severe myelosuppression, renal damage, or septicemia, all of which complicate the assessment of cardiotoxicity.

In the present study, neither doxorubicin nor mitoxantrone showed evidence of severe myelosuppression or renal damage that would complicate the evaluation of cardiotoxicity seen in doxorubicin - treated dogs.

p. 1199 In spite of this fact, many tumors that are innately unresponsive to or only marginally responsive to doxorubicin are sensitive to the anthracenediones. These include colon adenocarcinomas 38 and 06/A. This would imply that if a human tumor was innately responsive to doxorubicin (tumor regressions observed), and then eventually regrew in the face of continuing doxorubicin treatment (drug resistance), it may be a poor candidate for anthracenedione therapy. On the other hand, if a tumor never responded to doxorubicin (innately insensitive), it may be an acceptable candidate.

It should be emphasized that a combination usually has TS only against a tumor that is responsive to each of the cytotoxic drugs used singly (8 - 10).

SHOULD

p. 1073 While these studies undoubtedly should be pursued, the attempts at allogeneic transplantation should probably be limited for a time to patients who at high risk of entering blastic crisis, since the appropriate methodology

for this approach is yet to be worked out.

It has been proposed (and one pilot study has already been carried out) that aggressive chemotherapy should be administered to suppress or ablate the emerging clones (6).

P. 1085 We tend to overestimate our knowledge of prognostic factors. Large prognostic factor studies are very important and should be vigorously pursued.

It is generally accepted by statisticians that exclusions after randomization should be avoided, because they can introduce bias (15).

Postrandomized consent designs are being usefully employed in oncology today. I believe, however, they should be introduced only in situations where the conventional practice of seeking consent before randomization has proven troublesome.

For studies employing post-randomized consent, the patient refusal should be closely monitored.

P. 1097 Physicians in practice should exercise caution in adopting a new therapy if there is no independent confirmation.

P. 1121 We conclude that the use of VM-26 with methyl-GAG in this dose schedule offers no advantage over single-agent therapy. Methyl-GAG, when administered on a biweekly schedule, is effective and well-tolerated.

This agent should be considered for incorporation into chemotherapy protocols for the therapy of previously untreated patients with malignant lymphoma.

P. 1199 Interestingly, these same five agents: palmO-ara-C, 5-FU, VCR, dacarbazine, and cisplatin have also been demonstrated to have TS with doxorubicin (4, 9, 13 - 15). Although testing was restricted to colon and mammary adenocarcinomas and to L 1210 and P388 leukemias, the TS observed should be applicable to other tumor types in man.

Furthermore, if one of the agents is clearly superior to the other, then the dose ratio also becomes important. In general, the highest ratio of the most active of the two agents should be used to obtain the maximum TS (16,17).

P. 1246 We therefore suggest that, in patients receiving MM-C who develop MAHA, the drug should probably be discontinued, blood transfusions should be withheld unless there is a life-threatening situation, and plasmapheresis with exchange transfusions should be promptly started.

CLINICAL AND EXPERIMENTAL IMMUNOLOGY, OXFORD, V. 48, N. 2, MAY 1982, P. 289 - 512.

WILL

P. 313 One disadvantage of the irradiated recipient is that it recovers at 10 - 11 days after irradiation, and so will be useful mainly for the detection of effector cells or interactions which generate effector cells in a short time, otherwise the host contribution is likely to obscure the protective actions of the transferred cells.

P. 381 The identification of HLA-DR (Ia-like) antigens on the surface of immune-activated macrophages and in very high concentrations on the interdigitating cells (ID cells, Janossy et al., 1981) of the spleen and lymph node (Lampert et al., 1979; Steinman et al., 1979; Janossy et al., 1980) and the langerhans cells in the skin (Klareskog et al., 1977; Stingl, Tamakí & Katz, 1980) has made it possible to demonstrate these cells in tissue sections with immunohistological techniques. However it is clear that the HLA - DR + ve cells identified will represent a heterogeneous population.

P. 428 This technique can be proposed to test the sensitivity of lymphocytes from immunodeficient subjects to FTS, and may help to predict which patients will benefit from therapy with this synthetic peptide.

P. 467 When anti-idiotypic antibodies prepared against a non-homogeneous immune response and carefully defined as to class and subclass, are injected by an appropriate route into adults, one can be fairly confident that a degree of idiootype suppression will be induced.

P. 511 The results indicate that immunization with purified allogenic or xenogenic LSP preparations will lead to production of liver lesions with typical inflammatory nature.

WOULD

P. 382 It was therefore felt that such techniques, in combination with HLA-DR (staining would make it possible to analyse the histopathology of the arthritic synovial lining in a discriminating way.

P. 386 It is reasonable to suggest that any immunological mechanisms active in the rheumatoid synovial membrane would be reflected in the immunohistology of the

tissue.

p. 415 We would like to thank the obstetricians for permission to study their patients, and nursing staff of the post-natal wards at King's College Hospital, for their assistance given in interviewing the parents.

We would also like to thank the Smith and Nephew Foundation whose Fellowship supported Dr. V. F. Richardson.

p. 511 Whether the mechanism of liver injury in the former case is due to immune complexes (Paronetto & Popper, 1976) or to direct immunological response toward antigens shared between LSP preparations, would require further studies.

SHOULD

p. 415 Prospective study of these children should enable some of the questions concerned with the relationship between infection, allergy and this immunodeficiency in infancy to be answered.

p. 423 The possibility of getting large amounts of synthetic FTS raised great hopes for treating such disorders. However, this therapy should be decided after the sensitivity of the cells has been tested in vitro, since some of these disease states are thymus - dependent while others depend on alteration of other functions, i. e., stem cell maturation.

CURRENT MEDICAL RESEARCH AND OPINION, LONDON, v. 7, n. 9, 1982, p. 553 - 630.

WILL

p. 605 Patients received 200 mg tiaprofenic acid 3 times daily or 250 mg naproxen twice daily, each for a 2 week period with no initial or between treatment washout periods. The results of objective and subjective assessments before and after treatments indicated that, overall, both anti-inflammatory drugs were equally effective and tolerated. Patients preference comparisons of the two treatment periods suggest that for some patients tiaprofenic acid will be a useful addition to this group of drugs.

p. 609 The patients' preference data of the present study show no significant differences between the two drugs and

suggest that some patients will find tiaprofenic acid a useful addition to this group of drugs in the treatment of rheumatoid arthritis.

WOULD

p. 561 There is every indication that the problems of comparability of pain assessments that could occur with multi-centre trials have been overcome by the study of large numbers of patients. The efficacy results demonstrate, as would be expected, that the more acute pain states such as sprains, strains and fractures showed a higher "good" response than the more chronic conditions such as osteoarthritis.

In conclusion, the results of this open study in a large, diverse population, indicate that zomepirac is an effective analgesic in a wide range of painful conditions. Moreover, it would appear to be well tolerated in that side-effects, in general, were of a transient nature and only necessitated the termination of treatment in 7% of the study population, confirming the high level of acceptability reported in other repeat - dose studies with zomepirac.

SHOULD

p. 561 All of the patients included in the present study reported with pain of at least moderate severity, with a further protocol criterion that the pain should not be of a transient nature.

There are undoubtedly some drawbacks to the study of any drug in an open trial. In the interpretation of efficacy results, due allowance should be made for placebo effect which would account probably for about 20% of any positive pain relief.

p. 596 The pattern of the depth and duration of analgesia with nefopam was similar to that with morphine, pentazocine and pethidine in both low and high doses. It should be noted that the depth and duration increased marginally in the high dose group. This finding would be expected when the figures of the doses on a milligram per kilogram weight basis are examined.

It should be noted that a good response to pentazocine with respect to the other three treatments was not unexpected in view of the findings of Paddock et al., who showed the relative analgesic potency of pentazocine, and morphine to be 0,28 (27 mg pentazocine = 7,5 mg morphine) in a large population of postoperative patients.

WILL

p. 215 It is hoped that further characterization of this protein and its interaction with the lymphocyte receptor will lead to a role being assigned to this factor in vivo.

p. 258 Cells from the rosette - forming cells depleted interface were collected and will be further referred to as the Null-cell population.

The E rosette - forming cells depleted interface were collected and will be further referred to as the Null - cell population.

p. 266 The cells retained on the anti - (Fab')₂ immunoabsorbent could be detached by competition with human immunoglobulin and will be referred to as B cells.

p. 311 However, if the antibody has to reach the tumor from the blood, the accumulation of antibody in the tumor will be impeded by the slow diffusion of antibody across the capillary wall and the rapid loss of antibody from the tumor cells.

Furthermore, if antibody is cleared from the blood at a faster rate than neutral immunoglobulin, even small amounts of non-relevant radiolabelled immunoglobulin will contribute significantly to the background.

WOULD

p. 270 We have observed a similar inhibitory effect on T - colony formation by both synthetic and endogenous PGE but we could not demonstrate any correlation between PGE content and CPA in several MC - CM (Klein, Chaintreuil, Caraux S. Giastes des Poulet, in preparation), in agreement with a recent report by Rozenszajn, Goldman, Kalechman, Michlin, Sredni, Zeevi & Shoham (1981). Phagocytic cells would therefore seem to release substances other than PGE to produce their inhibitory effect.

p. 311 Neutralization of antibody by soluble antigen in the blood and extracellular fluid would also reduce the amount of antibody reaching the tumor cells.

As a result the T: B ratio would be expected to equilibrate at a much lower value.

p. 319 Thus, it appears that living cells and fixed cells have identical antigens since possible differences in the antigen site densities between living and fixed cells would not affect the saturation binding in antigen excess, the differences in the x values indicate that active antibody is lost when the antibody is incubated with living cells.

SHOULD

p. 197 Our data indicate that the severity and duration of AIA depend in part on the dose of i. a. antigen and in addition that inflammatory phenomena in the joint influence antigen handling. Therefore further studies on antigen handling in the joint should include data on these aspects.

p. 211 The complete absorption data is depicted in fig. 3. Using 10% fresh normal BALB/c serum for absorption, approximately 70% of the inhibitory activity could be absorbed by 1.6×10^7 BALB/c cells, whereas the same number of mutant (C55) thymocytes failed to absorb the inhibitory material. Furthermore, it should be noted that AIF was not absorbed by mouse erythrocytes (data not shown).

p. 246 This study was, however done to elucidate effects on physiochemical surface properties and phagocytosis of reacting MR 10 bacteria with IgG and then with SIgA or vice versa. It should again be stressed that IgG and SIgA were from different sources but that they both had affinity for the MR10 bacteria.

p. 262 Secondly we have shown above that as few as 2% Null cells could produce the amplifying phenomenon: as we have just noted that these Null cells contain a maximum of 1% monocytes, this means that in the hypothesis of monocytes acting as synergiser, 0.02% monocytes should produce this phenomenon.

p. 378 This possibility is given strong support from our finding that in culture of lymph node cells of athymic nude mice in the presence of TCF mast cells were totally absent.

 Attention should also be drawn to the analogous dependence of Ig E synthesis on T cells and to the steep increase in Ig E - forming cells and in the Ig E level in helminth infection (Ishizaka & Ishizaka, 1978).

IMMUNOLOGY, OXFORD, V. 46, N. 1, MAY 1982, P. 1 - 235.

WILL

P. 33 In general, the best growth conditions are those with the highest cell concentrations which the medium use will support.

P. 53 Nylon wood non-adherent spleen cells, by contrast, may contain as many as 15% Ig + cells (Handwerger & Schwartz, 1974; Rollwagen F. M., unpublished observations).

The spleens of some H - 2^d strain mice may contain about 5% - 10% Ig⁻, Thy - 1⁻ (null) cells, which will be included non - adherent pools (Mathieson B. J. & Mage M., personal communication).

P. 65 To evaluate these possible explanations and several other possible interpretations of this migration will require the clear delineation of T - lymphocyte subpopulations.

P. 187 In conclusion, we can afford two types of manifestations to the IM: one which is responsible for recognizing the antigen, when it re-appears in the body, another responsible for assuring a sufficient amount of antibodies at every time that will not allow the development of a disease.

WOULD

P. 65 When these cells are labelled they may considerably alter the apparent pattern of migration of efferent lymphocytes into afferent lymph. One would not observe this in the granuloma where there are a large number of lymphocytes migrating into afferent lymph.

Labelled afferent lymph cells from normal skin, would not be affected by this sub-population in efferent lymph, and thus demonstrate a consistent pattern of migration, similar to that through the granuloma.

P. 94 We could not, however, inhibit an MSA - AVP - induced response using high concentrations of free AVP (not shown). Also, this hypothesis would imply that B cells have surface receptors for both AVP and OXY, which remains to be demonstrated.

P. 122 Interestingly, normal peritoneal rat mast cells appear to be associated with relatively little H (Froese, 1980).

An alternative explanation for the reactivities, of anti-Rec^{NIH} and anti-RBL^{Balt} with H would be that R and H cross-reacted as antigens. However, had this been the case one would expect two antisera to react better with R, the immunogen, unless of course, the immune response to R was heteroclitic.

Indeed determinants exposed on intact RBL cells would seem to be primarily involved.

p. 131 One possible explanation for the loss of lymphocytes in PB infection would be a serum factor such as an autoantibody or cytotoxin.

p. 143 However, if the aggregation is the reason for the higher molecular weight moieties, then it would seem that the complexes are probably disulphide bonded as they resolve into lower molecular weight entities only on reduction with dithiothreitol. The presence of N-ethyl maleimide in the lysis buffer should have inhibited such aggregation after solubilization.

p. 187 Hence, this memory would have been definitely established during the 1947 - 56 circulation and we propose that anti-influenza IM may be of a long term duration.

SHOULD

p. 122 There is additional circumstantial evidence to suggest that H is relatively more immunogenic than R. Thus, anti - Rec^{wpg} reacts more readily with H even though the receptor^{wpg} preparation used to induce this antiserum should have contained significant amounts of both H and R.

p. 143 However, a simple explanation should not be forgotten, i. e. that Group I reagents may have a greater affinity for antigen than Group II reagents which bind fever cells and can easily be displaced (and therefore not block) the Group I antibodies.

This possibility should be borne in mind when working with monoclonal antibodies and particular care should be taken when assigning a new specificity to an antibody especially in the absence of appropriate biochemical testing.

p. 152 Another possibility is that the DNP residue of DNP₁ - 33 HEL might be inaccessible to receptors of anti-DNP B cells owing to steric hindrance by the bound factor through complex formation. Alkan et al. (1972) reported that to develop an antibody response, a haptenic epitope should be separated from a carrier epitope by more than an expanded span of 6-amino caproic acid residues.

POSTGRADUATE MEDICINE, MINNEAPOLIS, V. 70, N. 3, SEPT. 1981,
226 P.

WILL

p. 44 A physician who understands the underlying pathophysiology will appreciate, for instance, that dizziness, vertigo, and light-headedness may be difficult to distinguish for a patient unfamiliar with those sensations.

p. 49 Despite Administration demands that PSROs be done away with by this Congress, both the Senate and the House moved to keep them alive during voting on budget reconciliation details. Then, Sen. David Durenberger (R. MN) introduced a bill which essentially would transfer PSROs from federal control to state and private-interest control. All this will take some time and may not happen until next year.

p. 87 Topical application of 20% podophyllin in benzoin weekly will eradicate about 80% of isolated lesions.

p. 93 A 10% potassium hydroxide slide preparation of material obtained from the lesion will usually reveal the fungus microscopically.

p. 117 If localization is not accomplished during the initial evaluation, operation should not be recommended and reexamination in six weeks will be required.

p. 145 As already mentioned, about half of the patients will need nothing more. The other half includes those who cannot tolerate aspirin, those who require different or more potent antiinflammatory measures, and those with severe, progressive disease.

Many patients who innitially do well on a certain drug may "escape" from it after several weeks and will improve again when a different agent is chosen.

Virtually all nonsteroidal antiinflammatory agents can cause gastric upset and should be given with great caution to patients with a history of peptic ulcer.

Some of these agents are incompatible with aspirin so the package insert should be carefully reviewed.

If after three months or so of therapy with nonsteroidal antiinflammatory agents, more aggressive treatment is clinically indicated, one of the disease - arresting modalities should be chosen.

P. 153 Arthritis may occur early but is also usually mild. Occasionally, frank rheumatoid arthritis with articular erosion and positive rheumatoid factor will develop in scleroderma patients.

P. 183 Part 2 will be published next month.

Units of measure and normal values are shown in table 1 and, in the interest of brevity will not be repeated.

High and low values will, however, be designated by H or L in all cases.

P. 198 Many factors are involved, and the problem will remain for the foreseeable future.

WOULD

p. 49 If a conventional war broke out even in Europe, where the United States has had facilities for years, "fewer than one in ten wounded" would receive surgery, he claimed.

Despite Administration demands that PSROs be done away with by this Congress, both the Senate and the House moved to keep alive during voting on budget reconciliation details. Then, Sen. David Durenberger (R, MN) introduced a bill which essentially would transfer PSROs from federal control to state and private-interest control.

p. 117 Continued discharge, particularly if it is annoying to the patient, would be the main indication for operation.

p. 145 It would be foolish to enumerate here all of the nonsteroidal antiinflammatory agents available, since the list changes rapidly with the addition of new drugs claimed to be more effective and less toxic.

SHOULD

p. 44 Before rapidly rating a patient as a good or poor historian, the physician should keep in mind the difficulties inherent in translating events into words.

p. 49 There are inadequate facilities and manpower to deal with the Rapid Deployment Force Should it be called to action, he said.

P. 63 Such circumstances include not only acute myocardial infarction but also viral myocarditis, cardioversion, metastatic tumor of the heart, and myocardial trauma. This should be kept in mind as ^{99m}Tc pyrophosphate myocardial scintigrams are used to evaluate patients with chest pain.

P. 87 For large confluent lesions, biopsy is mandatory: specimens should be taken from several sites to minimize the chance of missing an area of malignant transformation.

Larger lesions should be excised using appropriate anesthesia and taking care to thoroughly electrocoagulate the base of each.

Prior to application of podophyllin, the surrounding normal skin should be protected by application of a light layer of petroleum jelly to prevent irritation.

P. 93 Balanoposthitis is most frequently of candidal origin. If it is chronic or recurrent, one should suspect diabetes mellitus.

P. 101 Thus it is not surprising that the outcome of care - particularly as perceived by patients - should be adversely affected.

P. 107 For clarity, the term "indication", which has infiltrated the medical literature should be defined.

P. 111 The decision to perform tonsillectomy, adenoidectomy, or both should be based on a thorough history and physical examination.

The patient or the family should be asked about the signs and symptoms even though the patient has been referred by another physician for consideration for surgery.

P. 117 If localization is not accomplished during the initial evaluation, operation should not be recommended and reexamination in six weeks will be required.

The patient should be instructed not to manipulate the nipple area during the interim, as such activity usually stimulates further discharge, and to observe carefully the nature of the discharge and its chronologic association with menstrual flow.

Continued discharge, particularly if it is annoying to the patient, would be the main indication for operation. At that time a quadrant near the areola that includes the offending duct should be resected.

P. 129 If prolonged steroid therapy is unavoidable, every effort must be made to reduce dosage to the minimum. Steroid therapy should never be stopped abruptly.

If one form of therapy fails, another should be tried.

Benefit from antimalarial drugs may be seen in six to eight weeks or may be delayed for as long as six to eight months. The daily dosage of hydroxychloroquine should not exceed 5 to 7 mg/kg; that of chloroquine, 4 mg/kg.

p. 133 The recognition and treatment of iridocyclitis are difficult and should be entrusted only to an ophthalmologist.

Patients with panciarticular JRA, the most susceptible group, require slitlamp examinations every three months. All other patients should be examined at six-month intervals.

Routine screening for silent iridocyclitis should be performed in all children until they reach late adolescence.

Most children with JRA do not require corrective surgery. Nevertheless, the orthopedic surgeon is an integral member of the collaborative team and should be consulted as early as possible should the need arise.

p. 145 Home physiotherapy consists of range-of motion exercises for both affected and as yet unaffected joints. In addition every effort should be made to strengthen extensor muscles and to avoid rest positions in flexion, even when these are most comfortable (eg. no pillows under the knees at night).

Nonsteroidal antiinflammatory agents - if tolerated and tolerable, the previous regimen should be maintained for at least three months.

p. 145 The office-based physician should become familiar with the main classes of these drugs, since most agents fit into one or the other.

However, barring side effects, each drug should be used for at least two weeks before it is abandoned.

p. 163 Since Riynaud's phenomenon is present in more than 90% of scleroderma cases, its absence should suggest another diagnosis.

p. 167 The blood pressure should be measured frequently, and the development of hypertension should alert the physician to the possibility of renal involvement which can rapidly lead to renal failure.

If present it is treated with vasodilators, such as hydralazine and renin suppressors, such as propanolol (Inderal), but care should be taken to avoid diuretic - induced hypovolemia.

Cardiac failure often complicating renal crisis in scleroderma patients is managed in the usual ways, but all drugs, especially diuretics, should be used with extreme caution.

Pulmonary involvement is sufficiently common that all scleroderma patients should avoid use of tobacco.

The patient with sicca syndrome should also undergo frequent dental examination, since xerostomia leads to severe dental caries.

p. 191 Tolazamide should not be given to hyperglycemic patients with impaired renal function or, for that matter, impaired liver function.

The dual elevations of serum alkaline phosphatase and total LDH should have merited some attention during the patient's hospital course.

POSTGRADUATE MEDICINE, MINNEAPOLIS, v. 70, n. 4, Oct. 1981,
246 p.

WILL

p. 41 Occasionally patients will have little to say, in which case they can be asked about their daily routine.

Such patients may withdraw into isolation or increase their delusional thinking. Allowing patients to ventilate concerns about the absence will help prevent a relapse and even strengthen their adaptability as they learn that they can cope with minor losses.

p. 57 Furthermore, symptoms may be present as the result of emboli from an ulcerative arteriosclerotic plaque that does not narrow the lumen of the artery and consequently will not produce a bruit.

p. 66 If the carotid lesion is ignored, the patient will be at considerable risk of cerebral infarction during intraoperative or postoperative systemic hypotension.

p. 223 Success in relieving hypoxemia may be assessed by serial blood gas analysis, although both the pathologic pulmonary process and the harmful effects of therapy will affect interpretation of results.

If a hyperpneic patient with a high spontaneous inspiratory flow rate is treated using a device incapable of meeting the demand, the respiratory gas mixture will be markedly diluted by room air ($FIO_2 = 0,21$), with a resultant reduction in tracheal FIO_2 .

p. 231 For example, a nebulizer receiving 10 liters/min from the oxygen source and set to deliver an FIO₂ of 1,0 will deliver 10 liters/min of 100% oxygen.

However, because of air entrainment used to dilute the oxygen source, the same nebulizer set to deliver an FIO₂ of 0,7 will have an output of 16 liters/min of 70% oxygen and will deliver a total of 11,2 liters/minute of oxygen.

WOULD

p. 13 In ancient Chinese medical practice, a woman patient would often not permit her physician to touch or even look upon her.

They cite the statistic that, on the overage, adults listen to only 25% of what is being said to them. It would be interesting to know how physicians would fare in such a study.

p. 24 I would like to report dramatic improvement in tardive dyskinesia and parkinsonism following use of propranolol (Inderal).

I also agree that history and physical examination are too often deferred until after radiographic examination. It would benefit not only the patient but the clinician and radiologist for at least a preliminary impression to be obtained from history and physical and laboratory findings prior to x-ray examination.

p. 29 Unfortunately, we made no record of these over the years. Had we done so, the list would now be long, I have no doubt.

p. 38 She believed that companies want employees with excellent health and thus would prefer not to hire diabetics.

p. 108 It has been discovered that the section would also apply to capital improvements in hospitals and physicians' offices and could cost the government millions of dollars in resulting augmented Medicare reimbursements.

This year, as part of a huge budget package, HHS sought to win congressional enactment of a provision that would have enabled the setting of a single rate for dialysis whether done in a hospital, at a forprofit clinic, or at the patient's home.

Informed by Ways and Means Committee staffers that this would have meant a boon for the for-profit centers and the end of hospital participation, House Senate conferees wrote a substitute.

P. 203 In a world of perfect tests, all patients without disease would have one value on a test and all patients with disease would have another value, as illustrated in figure 1.

SHOULD

P. 36 In prescribing antianxiety medication, the physician should be mindful that moderate levels of anxiety stimulate the adaptive functions necessary for coping successfully with problems.

Care should be taken that these adaptive forces are not hindered by medication.

Patients should be told that medication should be necessary for only a brief time.

Side effects should be honestly discussed.

P. 41 Appointments should be at regular intervals ranging from once or twice weekly to once or twice monthly, depending on the severity of the condition.

Meeting should always begin and end on schedule.

Sessions should begin with whatever the patient wishes to talk about.

Fantasy activity and delusional thinking should be discouraged by asking the patient about real-life events.

If the physician is to be absent, the patient should be notified well ahead of time and provided with the name of the covering physician.

The patient should be encouraged to express feelings about the physician's absence.

P. 41 Need for rehospitalization should be approached as positively as possible, with the physician emphasizing the gains that can be made and looking forward to attempting to avert future hospitalization.

Patients with multiple physical complaints should be seen regularly.

P. 57 A carotid bruit may be inconsequential or may signify a precatastrophic condition. The physician should correlate symptoms, physical findings, and results of noninvasive laboratory tests to determine the need for angiography, the sine qua non for establishing the cause and significance of the bruit.

P, 66 Likewise, the presence of a unilateral or
bilateral asymptomatic bruit in patients admitted for major
abdominal or thoracic surgery should be considered an
indication for diagnostic evaluation.

Should the bruit prove to be the result of a significant
carotid lesion operation on the lesion should be perfomed
either before or simultaneously with the proposed abdominal or
thoracic operation, depending on the seriousness of both.

P, 70 If the duct is not dilated, several quick
exposures should be obtained.

P, 99 Thorough examination of the ear itself is
mandatory. The clinician should ascertain whether purulent
material is draining through a perforated eardrum and whether
a neoplastic process is present in the middle ear cleft or the
external auditory canal.

P, 103 The hypopharynx and the piriform sinuses should
be checked for inflammatory or neoplastic lesions, as should
the larynx.

P, 113 Because of the severity of these episodes, the
patient should be instructed in self-administration of
epinephrine and should keep it at hand at all times.

P, 123 Evaluative techniques should be used only when
appropriate and not in knee-jerk fashion.

The reader is reminded that antibiotics should be used only
when a bacterial etiology for acute diarrhea is strongly
suspected or proved by culture.

P, 127 The physician should emphasize the relatively
benign prognosis to patients, particularly those with
recurrences of rectal bleeding.

P, 160 Toxic megacolon should be suspected with
worsening abdominal pain, distention, decreased bowel sounds,
fever, dehydration, lethargy, and increasing leukocytosis.

Clinically, toxic megacolon should be suspected in any acute
colitis patient with worsening abdominal pain, distention,
decreased bowel sounds, fever dehydration, lethargy, and
increasing leukocytosis.

P, 211 In addition, syndromes associated with poor
oxygen levels in tissue (hypoxia) should be differentiated from
those that produce only a decrease in arterial oxygen tension
(P_{aO_2}) (hypoxemia).

P, 223 Arterial blood gas measurements should be used
to determine if additional oxygen is needed and should be used
as a guideline to selection of equipment, as some forms of
oxygen administration may be harmful.

Ideally, the oxygen therapy system chosen should deliver a fractional concentration of inspired oxygen (FIO₂) with the appropriate level of humidity and at the flow rate needed to provide the desired increase in tracheal FIO₂.

P. 227 This is a low-efficiency system. It should be used only when imprecise oxygen control, low flow rate, and poor humidity are acceptable.

THE JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM, BALTIMORE,
V. 54, N. 3, MAR, 1982, P. 485 - 672.

WOULD

P. 521 The abrupt onset of symptoms after head injury in a hitherto healthy child also would support an abnormality in the central regulatory mechanisms for HCTH and ADH secretion.

P. 532 In conclusion, we caution the reader, as others have before us (19), not to interpret abnormal oral dexamethasone suppression tests in renal failure patients as one would in nonuremic patients.

P. 552 Reasoning that the TBI activity of normal IgG might be more readily dissociable from the thyroid membranes than the IgG specific for Grave's disease would be, we modified the TBI assay by first incubating the membranes with or without IgG, washing them thoroughly with buffer, and then incubating them with ^{125}I b TSH.

P. 557 We would suggest, therefore, that the variable nonspecific TBI activity of normal IgG obscures the TBI activity of Graves' - specific IgG and thus reduces the sensitivity of the direct TBI assay.

In general, it would be expected that the TBI and HTSI activities of specimens of Graves' - IgG would be positively correlated.

P. 572 While the nature of the antigen(s) which initiates the autoimmune inflammatory process in the pancreatic islet cells of IDD patients is not understood, the process would initially require either antigen binding to monocytes or cell to cell interaction stimulated by the presence of antigen.

P. 585 We would like to thank Dr. A. Vignall for carrying out the determinations of stable iodine.

p. 597 After GABA binding to receptor sites, PRL secretion would be reduced.

p. 606 The concentration of LHRH at 1 min postinfusion is lower than would be expected had the administered LHRH not been rapidly metabolized.

p. 619 This hypothesis would predict that steroid - hydroxylating activity would not be appreciable in extraadrenal chromaffin tissue, where the intimate anatomical and vascular relationships between cortex and medulla necessary for this process do not obtain.

On the other hand, the demonstration of steroid - hydroxylating activity in extraadrenal chromaffin cells at levels comparable to those found in the adrenal medulla would suggest that steroid hydroxylases are constitutive enzymes inherent in chromaffin tissues generally.

p. 623 The absence of this enzymatic capacity would account for the failure to detect endogenous steroid hormone production in medullary tissues (2, 19) and would exclude chromaffin tissues, whether of intraadrenal or extraadrenal location, from the family of organs (adrenal cortex, ovary, or testis) capable of elaborating steroid hormones from their central precursor, cholesterol.

The distinctive subcellular localization of the steroid - hydroxylating enzymes of chromaffin tissue would make unlikely the possibility that this activity merely represents the nonspecific interaction of the mixed function oxidases of the catecholamine biosynthetic apparatus with steroid intermediates.

p. 663 With an age-related defect in baro-receptor - mediated input to the hypothalamus, the dampening effect would be removed, allowing an unrestrained response of the supraoptic nucleus to changes in osmolality.

SHALL

p. 552 Although tests for this activity have been variously designated, we shall refer to them as human thyroid - stimulating immunoglobulin (HTSI) assays.

SHOULD

p. 585 If, in contrast, small assays (i. e., kits for clinical laboratories) are required, ¹²⁵I - labeling with rechromatography of the label after 1 week should be selected.

THE JOURNAL OF INTERNATIONAL MEDICAL RESEARCH, NORTHAMPTON,
 V. 9, N. 6, 1981, P. 394 - 525.

WOULD

p. 403 Faced with a credible question of adversity one must make a decision about the appropriateness of using a specific drug. It would follow that at the time any monitoring system provokes concern or interest, there is need for resources which will allow that concern to be put into perspective and to be investigated.

p. 477 As has been found in previous studies (Rutland, Berend & Marlin 1979) there was significant intra-subject and inter-subject variability. Further investigation would be required to determine the cause of this variability.

SHOULD

p. 394 In Secondary Raynaud's Phenomenon, the optimal therapy should be the treatment of the underlying disorder (Halperin & Koffman 1979) but symptomatic treatment may also be required (Birnstingl 1979).

p. 399 The RTG ($P_{10} - D_{10}$) has been evolved to quantify this reaction so that a normal response is an increase in the value obtained over the TG ($P_0 - D_0$). Ideally the value of the RTG should be zero in the case of recovery, or positive in reactive hyperaemia.

p. 403 In whom is the drug used? The answer to this question should supply information about the treated populations in terms of demographic characteristics, co-morbid conditions, hospitalization status, etc., with specification of those characteristics which motivate for or against the selection of the drug.

What happens? The answer to this question should supply descriptive and quantifiable information about the subsequent health course of treated subjects in order to determine the effects of treatment, either beneficial or adverse.

Obviously, this is a complex set of questions and one would hardly propose that in any given situation one could or even should attempt to address all of them.

THE JOURNAL OF INTERNATIONAL MEDICAL RESEARCH, NORTHAMPTON, V.
10, N. 1, 1982, P. 1 - 63.

WILL

P. 11 Among the thirty clonidine non-responders, fifteen (50%) also failed to respond to guanabenz; these patients will be discussed below.

P. 22 While the aetiological treatment of psoriasis is not available, the judicious use of dermatologic therapies, such as coal tar; Anthralin, ultraviolet light, grenz rays, salicylic acid, mercury compounds, psoralens with ultraviolet light, antimetabolites, and steroids with and without occlusion will frequently prove beneficial to most patients.

SHOULD

P. 63 From a practical point of view, we suggest that doses of at least 8 mg/kg should be employed for patients with stones of small size and 12 mg/kg should be given to patients with stones of medium or large size.

TEXTOS DE MEDICINA

- 1 AMERICAN JOURNAL OF OPHTHALMOLOGY, Chicago, v. 93, n. 2, Feb. 1982, p. 145 - 270; v. 93, n. 3, Mar. 1982, p. 271 - 388.
- 2 BEESON, B. PAUL & MC DERMOTH, WALSH. Textbook of Medicine. London, W. B. Saunders, 1967. 1720 p.
- 3 CANCER TREATMENT REPORTS, Bethesda, v. 66, n. 3, Mar. 1982, p. 417 - 599; v. 66, n. 5, May 1982, p. 1073 - 250.
- 4 CLINICAL AND EXPERIMENTAL IMMUNOLOGY, Oxford, v. 48, n. 2, May 1982, p. 289 - 512.
- 5 CURRENT MEDICAL RESEARCH AND OPINION, London, v. 7, n. 9, 1982, p. 553 - 630.
- 6 IMMUNOLOGY, Oxford, v. 45, n. 2, Feb. 1982, p. 193 - 204; v. 46, n. 1, May 1982, p. 1 - 235.
- 7 POSTGRADUATE MEDICINE, Minneapolis, v. 70, n. 3, Sept. 1981, 226 p.; v. 70, n. 4, Oct. 1981, 246 p.
- 8 THE JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM, Baltimore, v. 54, n. 3, Mar. 1982, p. 485 - 672.
- 9 THE JOURNAL OF INTERNATIONAL MEDICAL RESEARCH, Northampton. v. 9, n. 6, 1981, p. 394 - 525; v. 10, n. 1, 1982, p. 1 - 63.

TEXTOS DE INGLÊS EM GERAL

THE ECONOMIST, LONDON, v. 283, n. 7235, MAY 1982, 119 P.

WILL

p. 15 The first of this week's real diplomatic issues is how far the United States, after having tilted towards Britain too late to give itself quite enough leverage on either side, will now go to prevent a Nato ally from suffering naval or diplomatic reverse.

It will give the fleet assistance in resupply: quite a help were the fleet to be stuck in the South Atlantic for months.

Mr. Francis Pym has rightly kept on say that Argentina and others have to be shown that "force does not pay" and will be met by force rather than let it pay.

p. 25 If the Junta says no, Argentina will be in the dock for the second time on two weeks for turning down a peace plan, and an invasion of the Falklands would almost certainly follow.

p. 29 The fear of some United Nations officials, and others, is that Argentina will refuse to negotiate if it is forced off the islands; instead, it may lapse into malign inaction, waiting to retake the islands whenever an opportunity occurs.

The assault force will be in good shape for the next two weeks. Once troops are ashore, sea Harriers will have to be kept in the air continuously, searching with their radars for approaching Argentine aircraft; with the aircraft, this can be done.

p. 34 Yet third-world solidarity will not necessarily swing to Argentina - a relatively rich, white nation that has shown no inhibitions about cuddling up to the present regime in South Africa.

p. 44 The committee of top officials which suggests names to the prime minister for promotion to the permanent secretaries' club has agreed that, in future, ability to manage money and manpower will be a crucial element in selection.

Half a dozen permanent secretary posts fall vacant in the next year. Who fills them will be a critical test of Raynerism.

Voters will have had their own chance to pass judgement at Thursday's local elections.

The civil servants will find that local government has budgeted to overshoot the latest targets of Mr. Michael Heseltine, the environment secretary, by close to £ 1 1/4 billion.

His weary advisers will have to tell him that there is precious little he can do about it.

Local authorities have made their latest budgets in the full knowledge of how much grant they will lose because of their spending decisions.

When the figures are officially announced in a few weeks, the overspend will be underplayed.

P. 57 The danger of broaching these issues, with the budget still in a shambles is that congress will not have time or inclination to address other legislation.

Next door, in Wisconsin, Governor Lee Dreyfus has to general surprise, just given up the struggle, saying he will not seek another term:

In Iowa, Michigan, Minnesota and Ohio the incumbent Republican governors have all said they will not run for reelection this year (Governor James Rhodes of Ohio cannot by law succeed himself, though he could have run for the senate).

There will be a run-off on June 5th between Mr. Mark White, the state's attorney-general, and Mr. Buddy Temple, a member of the railroad commission that, along with other duties, regulates the state's oil and gas industry.

Mr. White, who rolled up 45% of the vote, will be favoured to win the nomination in the run-off.

P. 73 They retain authority over the police and will continue to serve as the government's chief political agents in France's 95 mainland departments, but they can no longer make the key economic decisions in their departments or in the 22 larger administrative regions.

In future the assembly's president will take over many of the powers that used to belong to the prefect.

No more companies are to be nationalised but parliament will be asked to approve an additional law fixing the powers of the nationalised companies boards and ensuring that unions get seats on them.

However, under the new guidelines announced on May 3rd, the government emphasises that it will continue to impose

restrictions, and it will not be unduly influenced by the argument that a busy arms industry creates jobs.

But it is unlikely that the chancellor, who is trying to heal splits in his party, will risk another row with the left.

P. 81 The Iraqi's capture of Khorramshahr early in the war, which they then renamed Mohamarrh, was their one clear-cut victory, and the city will not be relinquished lightly.

The first sticking-point is that Iran says it will talk about sovereignty over the disputed Shatt Al Arab waterway and the border enclaves only after an Iraqi withdrawal; Iraq wants talks before or during a withdrawal.

The old bear will have to endure yet another summer in which it is bled of men and roubles, by a people it thought it could deal with in a matter of months when those armoured columns crossed the Oxus at Christmas, 1979.

P. 85 About a third of this vast area is to be parcelled out among more than 100 states, whose national jurisdiction will thus be extended far out from their coasts - normally for about 400 kilometres, in some cases much farther.

The convention will be verbally polished up before it is signed in September, and it will come into force only when 60 states have ratified it.

But, after eight years of haggling, it is hard to imagine that there is any prospect of the present text being changed - unless clear signs emerge that it will not take effect at all.

Maybe, come September, a more favourable attitude will have emerged in most, or even all, of the now dissenting Capitals.

But the Americans remained particularly unhappy about the clause that will allow the terms of the seabed mining regime to be amended by a majority vote after only 20 years.

P. 92 Until the interest rates which are hurting so much of Harvester's business start to fall, the three new old men at the top of the company will have few moment's peace.

Exxon, on the other hand, will have to write off about \$ 900 m (including its \$ 300 m initial stake and its share of subsequent investment).

Union Oil still says it will go ahead with its Colorado oil-shale scheme. And American Natural Resources says it will go ahead with its Great Plains coal gasification project.

P. 97 It is arguing that as inflation is under control and a bumper wheat crop is about to be harvested, it will make sense to follow a more expansionary policy.

Some American officials expect Russia's gold sales this year

will almost double 1981's total of around 250 tonnes.

p. 102 Fidelity hopes for extra gravy from its discount - brokerage subsidiary, which will offer its services as part of these schemes.

Others suspect that small banks will always buy high-return services from wholesale providers who can tap economies of scale.

The City is more optimistic about the long-trends in the British economy than worried about the impact of military clashes in the South Atlantic, which it trusts will be short-term.

p. 111 The metal atoms then drop off and are extracted. Bend Research will begin field trials of uranium extraction in the next few months, backed by the United States bureau of mines.

p. 115 Arco worries that capital lent by the parent company to a subsidiary operating in China will be taxed.

The smog for American companies, which make up half of the potential bidders, is that they will not know their possible exposure to double taxation until one of them brings a test case before the internal revenue service in the United States.

Although the companies will not know exactly how the provisions will be applied until they see their "model contracts" on May 10th, relevant provisions include:

Development costs will be shared, but foreign companies must be responsible for development and production operations until the Chinese can take over. Equipment imports will be duty-free, or allowed at preferential customs rates.

Yet more frustrating to the French were the consequences of China's fear that Hongkong or Singapore will become the centres of Chinese offshore oil exploration.

Ultimately, the job of reconciling China's limited resources with westerners' demands will lie with Mr. Qin Wencai head of the newly-formed China National Offshore Oil Corporation (CNO OC).

So far, Mr. Qin is little known in the West. That will change.

Apart from overseeing the bidding, Mr. Qin will probably be involved in matching oil companies up with the growing list of Chinese rig and platform builders, and others would-be equipment suppliers.

This marriage will be made easier if the Chinese adopt a realistic view of oil companies needs.

p. 115 Judgement on the rest of China's oil development hopes will have to wait until bidding is completed in August.

P. 119 Unflagging in his search for new talent, unwavering in his belief in a pure literary form, Edward Garnett will be remembered as a man whose prejudices occasionally flowed his judgement but who was that rare being, a literary adviser who lived wholly for his authors.

WOULD

P. 15 Britain were to lose either of its two aircraft carriers, an essential troop carrier or equipment ship. The British fleet would then be ineffective.

Little force would be left so back diplomacy.

P. 19 The second commonsense assumption of the 1970s was that exchange rates would appreciate in any country that enjoyed large overseas surpluses and lower-than-average inflation.

The same forecasters expect Japanese inflation to slow to about 2%, the lowest undoctored rate in the world. Five years ago the yen would have rocketed.

The third commonsense assumptions (or hope) in the 1970s was that progress against inflation would allow world economic growth to revive.

If it defaulted on its debts, 25% of the capital and reserves of the nine largest American banks would be wiped out.

The thousands of Republicans on Wall Street and in corporate boardrooms, who would raise taxes now to reduce the deficit, are becoming inconvenient allies to the Democrats.

P. 25 It shows how flexible Britain could be if talks started. However, Mr. Pym is not keen to involve the UN too deeply at this stage; early security council action would be more of an encumbrance than a help ending hostilities.

The British government would be surprised if the Peruvian proposals fly in Buenos Aires, but has given Peru and the United States the green light to try for a take-off.

P. 29 First, he can maintain the blockade of the Falklands Islands from close by, and hope to demoralise the garrison in preparation for an invasion (or as a help in arriving at a political solution). Under this option British ships would continue to be endangered by Argentine aircraft.

And it would be worth almost any member to sink one of the two British aircraft carriers: with either gone, Britain would probably have to give up the idea of invading the Falklands.

This would be safer, but would cut down the reconnaissance information available to the task force.

A long-range blockade would also weaken Britain's ability to listen in Argentine communications and jam the radio links with the mainland.

An invasion would invite an all-out Argentine air and naval attack; but there is a strong military case for going ahead now, instead of fighting a tiring sea battle against the Argentines' aircraft, with the land battle of the islands still to come.

A few aircraft at a time can be refuelled in the air to give them the extra range to reach the task force and press home an attack, but most of the Argentine aircraft that would be needed to oppose a landing would arrive with only a few minutes of fuel before they had to head home.

p. 39 Union leaders had been huffing that unless the government backed down, they would close all ports.

They had publicly promised that, come what may, the Falklands task force would be assured of supplies but privately (and, especially after Tuesday's attack on HMS Sheffield) feared that there would be little public sympathy for their cause and (probably) little support from among their own members.

Liverpool and Clydeside have declined with or without the dock labour scheme, and ports such as Felixstowe and Dover would have thrived.

p. 44 That would have involved putting the whole lot inside the treasury, on the ground that no same business separates man power, personnel policy and budgeting if it wants to be efficient.

p. 48 Lord Scarman recommended (see box) a style of policing whose success would depend not on confronting, but co-operating with, local communities.

It is an example that many other police forces would like to follow.

But it will be hard for them to do so, without the political and legislative support that Lord Scarman said should come from the national government.

By early May, 1982, the government, which had lavished praise upon his report, had not implemented or said it would implement a single one of Lord Scarman's legislative proposals.

p. 53 A less buoyant secretary of state than Mr. Alexander Haig would almost certainly have gone down by now under the pressure.

This would take into account not only numbers of missiles but their "throw-weight", that is, the weapons-payload they can

carry.

p. 57 Mr. Thompson tried to extricate himself by announcing that in future he would accept no gifts worth more than \$ 100.

He would have been renominated easily in September.

A decade ago a racematching candidates such as Mr. White and Mr. Temple would have touched off a blood feud.

p. 69 The authorities not wishing to appear weak announced that these new illegal demonstrations would be "firmly counter-acted".

The demonstrations seem likely to strengthen the hand of the communist party's hardliners, who argue that it is too early to relax martial law and that talks with solidarity would only encourage more trouble.

p. 73 The chancellor would have liked to sell the tank to the Sandis, but felt obliged to refuse because of strong oppositions within his Social Democratic party.

p. 81 The Iraqis this week annouced that they would hand back some prisoners from the youth corps which recruits boys as young as 14 years old.

A bad defeat would threaten both President Saddam Hussein and his ruling Baath party.

The Shia opposition has been scattered and would be able to take power only after a bloody civil war, which Iraqi Shias have little stomach for.

It is a much larger force today than it was in 1958, when a single brigade set off Iraq's revolution by sizing control of Baghdad. An army coup today would have to be staged at corps level, which would be easier to detect and frustrate.

Nobody in Iraq seems eager to step forward to make the unpopular concessions that would be necessary for a negotiated settlement with Iran.

p. 85 That period looks like a mere twinkling of an eye to the seabed mining consortia. They would not count on being in full production until the mid - 1990s, even if they felt confident enough to go full speed ahead now - and they don't.

Might the seabed miners follow this example by jumping the gun too, relying on the national legislation that has been adopted by half a dozen states (including, since April 18th, the Soviet Union), or on the faint possibility of a "mini-treaty" concluded between those states? - Almost certainly they will not.

p. 92 If Harvester went bust, the Government's pension guarantee scheme would protect the pensioners - but it would

take a big chunk of the bankrupt firm's assets in return. Banks would be left scrabbling for whatever was left.

Alsands would eventually have produced about 130,000 barrels of oil a day, 8% of Canada's total oil demand. But the cost of that oil would have been about \$ 60 a barrel.

p. 97 Reason: grain dealers believed that Argentina's inability to offer Russia credit for grain purchases (a partial result of Britain's financial embargo of Argentina) would force the Kremlin to look elsewhere for its grain imports.

p. 111 Sophisticated sampling and analytical techniques assure that, if 15,000 people were interrogated, the results would be virtually identical.

p. 115 The Chinese have so far refused that request, saying it would deprive local firms of business.

And the rigs are on the spot, while lowering western rigs to China would cost millions of dollars.

SHOULD

p. 19 They should be dropping now, because of tumbling American inflation and an American economy "dead in the water" (to quote the secretary of the United States treasury).

p. 29 British planners are now pondering whether the task force should continue to operate within range of Argentine military aircraft, and whether an invasion of the Falkland Islands can safely go ahead.

p. 48 Recruitment: the police should improve ethnic minority recruitment; recruits should be assessed for racial prejudice.

Training: recruits should be trained for at least six months, followed by a period of probation; courses should include the prevention and handling of disorder; periodic in-service training should be compulsory up to the rank of superintendent.

Discipline: supervision of young policemen should be closer: racially prejudiced behaviour should be a disciplinary offence normally punished by dismissal.

Consultation: statutory liaison committees should be established between police forces and the communities they serve; lay visitors should be empowered to make random checks on suspects held in police stations; and independent element should be introduced into the investigation of complaints against the police.

Methods: "hard" policing, including the use of special squads, is sometimes essential: but police chiefs, in consultation with local communities, should give more thought to foot patrols, to "home beat", policemen based in specific areas, to familiarising officers with their areas, and to stationing older and more effectively trained officers in sensitive areas.

Powers and equipments: police power to stop and search suspects are "a mess", and must be rationalised; racist marches in sensitive areas should be banned, if necessary by legislative amendment; water cannon, CS gas and plastic bullets are necessary, but should be used only where there is grave fear of loss of life.

Information about black people's problems, needs and numbers is inadequate and should be collected by central and local government.

p. 53 While he was shuttling to avoid war in the South Atlantic, critics said he should have left such a risky job to subordinates and stayed at home.

p. 57 The governor's other gaffe was a request during a dinner with Senator Charles Percy of Illinois, a fellow Republican, that he should propose Mr. Thompson's wife, Jayne, for a federal judgeship on the district court, even through the local bar associations had already completed an evaluation of the candidates submitted by Senator Percy.

p. 81 Iraq's basic problem is that it has never figured out how a non-ideological state should fight an ideological one.

p. 102 A South African supreme court judge has said publicly what many investors have been muttering to themselves for years: the Johannesburg Stock Exchange should not be allowed to act as a law unto itself.

Temporarily blocking the deal the court said the exchange should not have allowed Kirsh to bid only for Greatermans' voting shares, leaving non-voting shareholders empty-handed.

p. 111 The NAB is noted for the thoroughness of its surveys of controversial issues like this. It should be.

Another example is when a sample of Americans was asked (one question) whether Russian newspaper reporters should have access to news in America and (another question) whether American reporters should have access to news in Russia.

p. 115 This summer it should become the first American rig operator offshore China when its Glomar Java sea rig begins exploration work.

WILL

p. 13 In a democracy, once the price of possible failure is seen to be high, policy makers, by wriggling to avoid both the failure itself and the criticisms of those who will benefit by it, make it more likely to occur.

Now that the real decisions are upon the prime minister she will pay a price for these first relatively easy three weeks unless she settles down.

She knows its resolutions will not remove a single Argentine soldier.

Either she will have by the weekend (see page 25) a negotiation on its way to a reasonable compromise, or she will be no worse off than before in an aborted negotiation, but with a stronger diplomatic and military hand to play the following week.

p. 17 They are designed to keep up pressure to restore the sort of relationship between government and the people that will give the economy a chance of working.

The realists in his government reckon that, even with some western help, it will take 10 years for Poles to regain the standard of living they enjoyed in 1979.

But the west will help neither itself nor the Poles by lending more money to Poland unless the Polish government can create an economy worth lending to.

He will not get it unless he releases all of Solidarity's leaders, pumps life back into the institutions the Poles created in 1980 and 1981 - independent trade unions and democratically elected workers' councils - and re-opens the "national dialogue" he silenced by martial law.

The economic measures taken by the martial law government - massive price rises the switch to self-financing in industry - will force more Poles below the poverty line and put more of them out of work. The Polish government will need something very like the independent unions set up by the Gdansk agreement of 1980 if the nations' energies are to be channelled into economic reconstruction instead of, once more, exploding into anger.

If the communist party is ever to reclaim its "leading role" in Poland, it has to face Solidarity and talk. If not the Polish crisis will get worse.

p. 25 Or a major diplomatic concession from the military junta in Argentina. The two may hang together, but only the latter will prevent war.

Mrs. Margaret Thatcher finds much in the plan which is unsatisfactory; it will be almost easier for her if Buenos Aires

rejects it.

Once British troops are ashore there, the battle of the Falklands will depend on (a) whether the Argentines manage to knock out one of the big British ships by daring or chance and (b) air superiority.

P. 29 That period of grace will expire on June 17th.

P. 33 But BA's airline business will be saleable only if it looks like climbing out of the red.

Results for 1981-82 (due out this summer) will be £ 150 m the better for these measures, says Mr. Watts.

On May 14th Mr. Creme plans to hold a press conference in Los Angeles, at which he will announce where the Christ is.

Then, within 60 days, the Christ himself will appear on television.

Words will not be necessary because he will speak to every individual throughout the world direct by telepathy, in his or her own language.

The Day of Declaration will, Mr. Creme insists, usher in a new world, based on sharing, justice and peace.

From now on it will slowly fall.

P. 44 For unemployment to come down, therefore, gdp will need to grow by perhaps 2 1/2 - 3% a year.

P. 53 The Americans, who are already steaming about the EEC's continued failure to stick to its promise not to increase its share of world food market, by dumping, have made it clear that they will not accept any more interference with their trade from the EEC.

P. 57 The air guard's RF-4 reconnaissance aircraft, which will have to supply more than half the air force's requirements in an emergency, are so old that metal is beginning to corrode and the wiring is deteriorating.

They point out that, because the regular armed services have been buying fewer weapons in recent years, there will be fewer to hand on the guard in the future.

Eventually estimates based on the full sample will be published.

P. 65 Mr. Lévesque has been bitterly complaining that the new Canadian constitution proclaimed on April 17th will revive Quebec's "cultural insecurity", by allowing more categories of children access to English language schools in the province than Quebec's own legislation has done, and indeed by intruding into all the provinces' rights in the field of education. But the constitution's relevant section will not, in

fact, take effect in Quebec until its own legislature authorises it - which is unlikely to happen during Mr. Lévesque's political lifetime.

p. 65 So the courts will probably soon be having to rule on appeals against provincial regulations which at present protect specific jobs for Quebeckers (and for that matter Newfoundlanders).

p. 73 East Germany now hopes that its industrial growth will speed up after changes made to its cumbersome bureaucracy in 1979.

Employment in French shipbuilding has declined by 20% since 1975 to 24,000. The French Government say that numbers will not fall further, but all the big shipyards are making losses. In the 1981 fiscal year, shipbuilding subsidies will cost the government just under \$ 350 m.

Formally, its plans to take only a 15% stake in the holding company which will run the three yards to be merged - Chantiers Navals de la Ciotat, Constructions Navales et Industrielles de la Méditerranée (CNIM) and Chantiers France - Dunkerque. The government's stake will really be larger than 15%, because Paribas, the newly - nationalised banking group, own 35% of Empain-Schneider, which in turn owns the France-Dunkerque yard.

The yard's marketing, research and development, and - as far as possible - purchasing agencies will be combined to form single departments. Each yard will be encouraged to concentrate on specialised types of ships, especially in high-technology markets where it's hoped that demand will remain relatively buoyant.

p. 77 The creation of 880 new jobs at Presur, at a cost of \$ 340,000 each, will be difficult to justify for a government already facing soaring budget deficits.

It is pushing through a five-year industrial restructuring programme, which will affect more than 600,000 workers and cost an estimated \$ 6 billion.

The most expensive restructuring is planned for the steel industry. At least 6,000 workers will lose their jobs among the steel industry's 44,000 employees.

The cash the migrants sent home will be sorely missed.

Any cutbacks in migration will mean a loss of valuable foreign exchange for labour-exporting countries.

p. 83 Argentina is now in a special category. Some bankers think it will have to reschedule its external debts later this year, even if there is an early settlement to the Falklands dispute.

Paradoxically, since any rescheduling will have to take place

after some form of IMF conditional credit is in place, Argentina's runaway fiscal deficit could then be under firmer control than anything that its economic minister, Mr. Roberto Alemann, could have achieved with his pre-Falklands proposal to cut 10% off the armed forces' budget.

Another of Argentina's neighbours, Bolivia, has such an intractable debt problem that a drying up of medium - term loans will pass almost unnoticed.

With bankers now shying away from Latin America, the main impact on Paraguay will be to slow down the huge hydroelectric projects on the Parana river - Itaipu on the border with Brazil, and Yacyreta on the border with Argentina.

P. 87 Officials are hoping that at least 500 traders will be busy on opening day. For the NYFE, the NYSE index is make or break. So far the market seems to be saying it will make it. Seat prices for the exchange, which declined to a low of 4,500 last October, have recently shot up as high as \$ 19,000 on expectations that the index contract will be a success.

The professor is resigned to the fact that he may have to see off Mr. Rowland yet again. Lonrho tells all who will listen that it is making progress in its discussion with government officials over another bid.

Ironically, the final decision on whether Lonrho will be allowed to do so may rest with the new trade minister, Lord Cockfield.

It is also seeking to make better use of its property assets, though it will be some time before it can make these sweat profits in the way Professor Smith would like.

P. 91 The betting is that several other Japanese firms will follow suit.

Meanwhile, when it comes to rams, Texas instruments has just revealed it will start building production facilities for the one-megabit chip.

Philips has developed a 3-D television camera and this is one of the results that will be seen in Britain on May 4th, on TV South's weekly science programme.

The ladder, some puffs of cigar smoke and a feather duster will all leap more or less convincingly from the screen in TV South's programme. But viewers will not be seeing 3-D television at its best. They will be seeing merely what can be done with a standard colour television set and cheap, coloured spectacles (which come free with the southern edition of TV Times).

Marconi Avionics sells a camera which will work under 2,000 feet of water.

WOULD

p. 13 But a shrewd prime minister at such a moment would have offered consultation. And offered it again. And she would have done all those little private and public things that help a leader of the opposition who has gone far to be helpful but who is nagged by his old "peace-mongering" conscience, and his riven party, to rat when the goings gets hard.

Instead of arguing about the UN with Mr. Foot, a shrewd prime minister would be smothering the place in her embrace.

p. 17 In the long run it would do more damage to Poland's stability than trying to coax the west into resuming talks on debts and credits.

Western banks and governments have already lent Poland huge sums of money - \$ 29 billion at the Poles' latest count - and would naturally like to get back as much as possible as fast as possible.

After all, they argue, fears of a national uprising in support of Solidarity have proved unfounded. General Jaruzelski would be wrong to mistake smoldering silence for acquiescence.

p. 25 The proposals are unappetising to Argentina, not least because they come with the American threat that their rejection would mark an end to Mr. Haig's meditation and the start of active American support for Britain.

The proposals, in effect, call for the immediate withdrawal of Argentine troops; an American military and an Argentine diplomatic presence on the islands (the three flags solution); no absolute commitment either way on the issue of sovereignty; the ability of the islanders to have some degree of self-determination; and talks, perhaps under American refereeing or else within a United Nations framework, whose final deadline would not be final.

She well knows, however, that many in the house of commons and her own cabinet would prefer a negotiated peace to a possibly bloody fight.

p. 29 Venezuela's claims to two thirds of the whole territory of Guyana have not, in recent years, created as much tension as they did in 1895, when President Cleveland's secretary of state, Richard Olney, publicly committed the United States to going to war with Britain if the British would not let the border dispute be settled by arbitration.

p. 33 But if there was any chance of a sale to the private sector, the Thatcher government would be only too happy to write off BA's debts.

In these areas of old-fashioned industry and declining general

population where the schools are often poor, employment would be declining even if there were no recession.

The schemes were all conceived on the assumption that high unemployment would be a passing phase that what was needed was to keep people temporarily occupied until the economy turns up again, and the jobs are once more on offer.

P, 44 If employing young people were cheaper, they would probably get more jobs.

P, 49 For the Young Red Guards she was in the same league Joan of Arc and Mrs. Mao; they would have eaten their paint-prays for her.

P, 53 The Thais are now to be allowed to sell 5m tonnes of manioc a year instead of the 4.5m that EEC had planned to take. The Thais argued that they were completely dependent on the EEC market and would be badly hit by the proposed cut.

P, 77 Mr. Bustelo refers to a study by British consultants, which predicted little chance of the project ever making money. Despite heavy subsidies, the iron ore that Presur would sell to Ensidesia the ailing state steel maker, could be above market prices, it said.

P, 87 Not many owners of 30% of a company would be delighted to see a third successive drop in annual profits.

P, 91 According to the normal trend in semi-conductors, they would begin to meet competition from the next generation (256 K rams) around 1984.

SHOULD

P, 13 Rarely can a prime minister have taken so many right decisions through a crisis, yet presented them in ways that increase the price to her country should things go wrong.

In his heyday a year ago - before age, partisanship and actor's indecision began to catch up with him - President Reagan had a successful trick that Mrs. Thatcher should borrow: the more implacable his policy or view, the more amenable was President Reagan's manner.

P, 17 In London this week western bankers began informal talks with the Poles on what to do about the money Poland owes them this year. The answer should be clear.

P, 25 He has a wide range of support from Democrats and Republicans alike, not least from one of President Reagan's most powerful allies, Senator John Tower of Texas, who goes so far as to suggest that the United States should lend Britain

military support.

p. 33 That is no cause for celebration, since losses for the year could still be around £ 250 m. But operating losses should be down from 1980-81's £ 95 m.

p. 53 In theory, there should be little problem from "rules of origin" in a common market where all countries impose the same tariff on imported components (unlike a free-trade where there is no common external tariff).

Those European carmakers (including BL) who argue that, if Nissan goes ahead with the plan to build a major new car plant in Britain, it should be obliged to make 80% of the content of its cars in Britain should bear this in mind.

p. 57 A recent report on the future of this force, written by a group of guard generals, points out the importance of this national mission and demands that they should be allowed a greater say in the allocation of resources to carry it out.

Since the authors have little hope that the Pentagon is capable of procuring such systems on its own, they suggest that they should be allowed to commission and procure them themselves.

Should you want to know how many people of Spanish origin aged 65 or more live in South Carolina, or how many Asian children under five live in Houston or the median income of blacks in Fort Lauderdale, the answers are in the provisional estimates of social, economic and housing characteristics issued on April 22nd by the bureau of the census.

p. 83 The boardroom-view says that the whole of Latin America may be destabilised and should be avoided, for the time being.

THE ECONOMIST, LONDON, v. 283, N. 7240, JUNE 1982, 116 p.

WILL

p. 15 Their military installations have been destroyed their own towns, camps, schools and clinics will have taken a fearful battering.

It will make others even more disinclined to consider peace with Israel.

Dissenters will draw sour conclusions from America's decision on tuesday to veto the UN security council's third (and still ignored) demand that Israel withdraw its troops.

This anti-American backlash, muted by the Arabs' present fear of Iran, may come drop by drop; if or when it does, the Soviet Union will be waiting.

It seems inevitable that the PLO will be pushed deeper into Syrian bondage.

The PLO will have to lie low for a time but, in one form or another, it will re-emerge.

If Israel's lunge into Lebanon does not lead to a wider war, the next question will be how to get it out again.

This time they will try to stay until satisfied.

P. 20 In this new spirit of truthfulness we will move next year to our ninth summit and the first in the United States.

Once Stanley is in British hands again, the fight on West Falkland will start with much greater speed than the careful operations on the more important easter island.

The recapture of the Falklands will be, in Churchill's words, only "the end of the beginning".

So long as there is an air threat to the islands, a squadron of between 12 and 18 Phantoms (which are far superior to any aircraft now involved in the war) will be required.

P. 35 Israel's superior forces have devastated the Palestinians, and it will be a long time before the PLO can even start to recover.

Both sides believe that the immediate next stage will be an Israeli attack into Beirut to capture Palestinian camps and institutions and to kill or capture Palestinian leaders.

P. 39 War-weary Chadians are not daring to hope that their country's long stagger the valley of death will be ended by Mr. Habrā's victory.

Sir See Woosagur says, in his almost inaudibly soft voice that the MMM is communist and will take Mauritius into the Soviet sphere of influence.

P. 43 The confederation agreement says that each state will maintain its sovereignty.

A dance imported from Dakár called "Le Ventilateur", which consists mostly of sexy wiggings, has outraged some people in Banjul who fear that confederation will corrupt their youth.

P. 49 So will British Rail's (BR's) 12 wagon-building and repair workshops and the ports of Folkstone, Newhaven, Holyhead and Harwich, all of which are run by members of the 180,000 - strong National Union of Railwaymen (NUR).

P. 52 In the end, the party conference will be asked to vote clause by clause on Programme 82, with a final vote on the document as amended. So the conference will be dominated by the Benite proposals, but the trade union barons will have the chance to throw out the bilts they dislike.

New truce negotiations are now needed, and will be held on July 4th. By that time, the national executive will have had yet another row, over whether or not to expels members of the Trotskyite Militant Tendency.

Labour MPS will have six weeks after that to decide whether the party conference should be offered an alternative to replace the bumbling disaster of Mr. Michael Foot as leader.

Outside London and cities with other famous medical schools, cost will now have to be very strictly contained, and the hospitals may be unable to offer the full range of high-technology medicine.

As from monday, June 14th doctor's patients will be able to sign their own certificates claiming sickness benefit from the state - at least for the first week of any illness.

Self-certification (ie, a declaration by the patient that he was indeed ill) will take the place of doctors' notes for the first four to seven days of illness, thereafter, a medical certificate will still be necessary. Anyone claiming benefits by self-certification more than four times a year will be required to visit his doctor on the fifth and subsequent occasions.

P. 56 So it must be unlikely that calls for economies in the scheme will take precedence over calls for its enlargement.

P. 61 This year most candidates will spend on television commercials three quarters of the money they raise. Essential for the effective use of television is a political consultant, who will charge around \$ 50.000, frequently more, for a statewide campaign, and will also take an average 15% commission on advertising placed with a television station.

Even more PACs will be in evidence this year not least because the Democrats and groups on the left have at last woken up to their effectiveness.

Some PAC organisers are saying, however, that each Republican will need 50% more money than each Democrat this year, merely to counter act the disadvantages of Mr. Reagan and the recession.

Or, at least, that is what they often hint they will do.

P. (8) The field has an estimated life of 25 years and the London stockbroking firm Hoare Govett has reckoned that assuming oil prices increase 8% a year on average. Forties will

yield a profit after taxes of £ 3.9 billion.

So in order to maximise oil and gas production, hundreds of smaller fields will have to be developed off Britain, Norway, Eire, France, Holland, Denmark, Spain, Portugal and Italy. Many are in much deeper waters, will be barely economic, given current government incentives and declining real oil prices.

There is more exploration in the Norwegian fields, because the companies are slightly more confident that marginal fields there will be given a better deal from the government.

p. 19 This new licensing round will be Denmark's first since the original exclusive holders of the entire offshore concession area, the Danish Underground Consortium (A. P. Moller, Shell, Standard Oil of California and Texaco) agreed, under government pressure, to relinquish 50% of the acreage by 1982 and most of the rest (all but 2 - 3%) by 1986.

The issue will probably go to arbitration.

The new reserves will come from additional finds in the existing "maturing" zones and from "frontier" areas heavy in oil invest of Scotland, the Rockall Trough (territory disputed by Britain, Eire and Denmark), the English Channel and west of the Shetland Islands (where a 10 - billion - barrels field of heavy oil, already found, is uncommercial because of complicated geology).

p. 71 Next tuesday the ten's fish ministers will meet for another crack at agreeing on a common fish policy, after a seven month's break.

If no deal is reached before the end of this year, existing British waters will be thrown open to community fishermen who could, in theory, operate up to the beaches under the terms of Britain's accession treaty.

Access is however, only one of the interconnected issues which ministers will start to tackle in Luxembourg next tuesday.

p. 77 BP will need to invest heavily in finding new oil to replace its production, now reaching a plateau, from the North Sea and from the Prudhoe Bay field in Alaska. Most of its cash flow for the next two years will come from North Sea Oil, which is subject to heavy taxes even after this week's tax changes (last year the tax take on POP's North Sea oil revenue rose 44% to £ 2.6 billion). BP - watchers are encouraged by the flair shown by its chairman, Mr. Peter Watters, who vows he will create "a lean BP".

There is no sign that BP will shut all of its chemicals business.

p. 85 The chairman of the mine's holding company, Mr. Jack Goth, says it will have to close the mine if the (third) restructuring of debts is unsuccessful.

P, 89 A new bunch of bosses will, from next August, take over Levi Strauss USA, which accounts for three fifths of the California company's total sales.

In their place, Mr. Peter Thigpen (as president) and Mr. James McDermott (as senior vice president for marketing) will head a trimmer company. Levi's five American divisions, including the two the new bosses used to run, will report directly to the president, eliminating management level.

The shake-up will make Levi Strauss more responsive to the market; the company hopes sales in 1982 of jeans alone will be 1.2 m. pairs a month, worth \$ 200 m, scarcely more than the year before.

This year, some \$ 130 m. of licensed goods will be sold through 55 licensees in North America plus a small but growing number in Europe and Latin America.

Mr. Nakash now plans a second athletic goods line hoping that the soigné unlike the sweaty, will find the horse's head irresistible.

P, 93 The plant will convert gas from the nearby offshore Manifold into methanol and then, it is hoped, into synthetic petrol (synfuels). At first the bankers will put up \$ 1.2 billion with \$ 275 m of equity coming from Synthetic Fuels' shareholders: the New Zealand government (75%) and Mobil Oil (25%).

A further \$ 500 m. from the bankers will be on stanby, to offset any cost overruns.

However, with independent analysts forecasting that today's global annual demand of about 12 m. tonnes will rise by 1990 only to 25m tonnes, and with 3 1/2 m tonnes of new capacity comming on stream in the next 12 months serious overcapacity will loom if new uses are not found for the stuff.

Within the atmosphere-eg, against aircraft-lasers do have a disadvantage. Much of their light will be dispersed. Particles in the atmosphere (dust, water, smoke) will absorb some of the beam and air turbulence may deflect it.

For the moment, then, space wars still belong more to the silver screen than to defence strategy. Sceptical scientists think they will stay there, for the rest of the century at least.

P, 109 Whether relational databases catch on or not, the debate will help solve one fundamental problem faced by computer programmers: the software bottleneck.

Meanwhile, Roche will soon have to contend with the first real competitor to Valium.

P, 112 It is a service to help people to concentrate their minds on this possibility, but the service will be

greatest where Mr. Schell's polemic is not met with reverence assent but provokes argument and questioning.

This charge of being "holier than thou" will surprise anybody who is familiar with the invincible self-righteousness of Soviet propaganda as compared with the eternal self-criticism of the west.

WOULD

p. 15 It may also have been a bid to draw Syria into a full fight which Syria would lose but which could also spread the war alarmingly wider.

By thursday noon it still looked as if Syria would duck the challenge; but the size of the Israeli gamble is clear.

The denial is not necessarily true; but it is very hard to see what the PLD could have thought it would achieve by his murder. No matter. Israel, not waiting to see if the truth would emerge, bombarded Palestinian targets in Beirut and other towns.

Israel, with its usual mixture of eclat and ruthlessness, has done the first part of what its leaders said they would do.

p. 20 More puzzlingly the United States boasts the large fiscal deficits that Keynesian Canada and France would like, plus some of the monetary restraint that Japan and West Germany have achieved and that Britain aspires to.

We did nothing of the sort. The Americans continue to insist that they would not intervene in foreign exchange markets.

If the threshold were any higher there would be little sense in Japanese companies investing inside the EEC at all.

They would find it more profitable to invest in Efta countries, where a 60% local-content rule applies, and then to take advantage of Efta's duty-free entry into the EEC market.

p. 29 The junta it seems, wants its martyrs; a peaceful evacuation would be a humiliation but a bloody loss of Stanley an honourable set-back, a battle lost is a war that could last, intermittently for years.

Upon discovering that some of the Island's telephones were still working, he put 50 p in a telephone box and called a resident of Fitzroy; he was told that the Argentine soldiers who had been there had left and that his brigade would be most welcome if it came along.

British defence officials worry that, after Stanley falls the Argentines may ask for a ceasefire which Mrs. Thatcher under the

pressure of world opinion, would not to be able to resist.

The British are therefore having to look beyond the surrender of Port Stanley to a permanent defence establishment on the islands. This is what it would have to look like.

p. 35 The Palestinians expected Israel's attack into Lebanon; their mistake was to believe that it would be a repeat of the 1978 invasion writ larger.

Israel had persuaded the Syrians into thinking that they would not be attacked unless they attacked first.

p. 39 The only questions seemed to be whether the leftwing Movement Militant Mauricien (MMM) would get the 75% majority needed to change the constitution; what it would do with it if it did; and how much the loss of a staunch ally on this tiny spot in the middle of the Indian ocean will matter to the west.

If the party wins, Mr. Berenger, would get the finance portfolio.

p. 43 In an interview with your correspondent, the president of Gambia, Sir Dawda Jawara, insisted that Gambia would not be swallowed up, becoming merely the ninth region of Senegal.

It would come most convincingly from a disinterested group such as the UN team.

p. 49 But Aslef refused to accept Lord McCarthy's findings. BR's boss, Sir Peter Parker, retaliated by saying that there would be no annual pay increase for any of the rail unions - the WUR, Aslef or the white-collar union; the transport Salaried Staff's Association (Tessa) - without new productivity conditions.

Even if the unions agreed to all these conditions, BR said that its pay offer of 5%, against the unions' claim of 12%, would not be forthcoming until September.

p. 56 The government has only just begun to study alternatives, like divorce conciliation, which would help take these issues off the legal battlefield. The law society which administers the civil legal aid scheme reckons that the elaborate procedure for deciding who qualifies for legal aid costs £ 3 m a year-three times what it would cost for parents to have aid in child-care cases.

Their job would have been easier if Mr. Heseltine's task force had been more successful in getting the projects lined up for the Toxteth area off the ground rather more quickly.

p. 61 Her remarks further embarrassed Mr. Reagan in Europe and would have infuriated Mr. Haig had he not already been as angry as he could be.

P (8) Real oil prices, it reckoned, would have to increase more than threefold in the next 20 years to justify leaving oil under the seabed rather than producing it and investing the proceeds.

Both the British and Norwegian governments would rather wait until late in the decade when prices might increase to the levels of oil substitutes.

That looks more like a pious hope than a practical policy, for if the oil companies, were to use the experience they have garnered in the North Sea to exploit offshore fields outside western Europe the price of oil would not rise in real terms.

P. 71 In the autumn of 1978, Mr. James Callaghan promised Mr. Helmut Schmidt that Britain would agree to a common fish by the end of the year, but it never did.

Britain has always felt hard done by, because if it were not an EEC member it would be able to claim to thirds of the present EEC Zone as British waters.

British, which at one stage wanted a 50 mile zone largely reserved for its own fishermen, now looks ready to settle for a 12 mile zone, with a wider area of "box" off-north-east Scotland from which other community boats would be excluded.

Britain's waters would not remain rich in fish for long unless its community partners worked to conserve the tiddlers.

P. 77 This comforts the reader: indeed if BP did not consolidate Sohio, some share analysts and pundits would immediatly do so in order to demonstrate the underlying strength which the company's management added to BP when it made its Sohio deal a decade ago.

That, however, would leave it with the rock bottom inventories.

P. 85 Enthusiasts for competition - including American Express - had hoped the judge would turn air-ticket selling into a competitive, unsupervised branch of retailing.

P. 93 It would then have to seek out foreign buyers since there is no way that domestic demand could mop all that up.

P. 97 Probably the worst result would be a stalemate, with each firm paying a heavy interest price for a useless stake in the other. That way, both would lose.

P. 103 In that time a supersonic aircraft would have moved one eighth of an inch.

Deployed in space, however, a laser weapon would deliver much more of its generated power on target. Whereas in the atmosphere an infrared laser would lose half its power within 1,5 miles, it would take 4 miles for that to happen in space. So lasers look ideal for anti-satellite or anti-ballistic missile systems. If so, and if Russia gets such weapons first, it is argued, America's strategic weapons would be outdate, and its communications satellites would be at risk.

In theory, satellites armed with laser weapons would keep watch on the Soviet Union's missile silos. If a missile were launched, a laser beam would be aimed and shot during the missile's initial "boost" phase.

An American airforce laser failed an accuracy test over a few miles last year and space-based lasers would need to lock on to targets thousands of miles away. Supplying power to the beam is another huge problem. An electrically-powered beam would need the generating capacity of a small nuclear power station; chemical ones (which America has been concentrating on) would require the transport and storage of hundreds of tonnes of fuel.

A more reasonable approach would be up to 50 satellites orbiting at around 1,000 miles above the earth. Even supplying them with fuel would be a very elaborate operation.

P. 112 While there is room for discussion there, Mr. Schell has authorities on his side and morally it is hard to fault his argument that, granted the uncertainty of the outcome, a decision to start the exchange would amount to a decision to accept the global holocaust.

This holocaust would come just because the society of nations failed to organise its affairs, since it is an essential piece in Mr. Schell's logical structure that men are not acting in this matter as instruments of any divine will.

If a high official of the Soviet defence ministry were permitted to argue on this plane, the nuclear problem would be well on the way to solution.

P. 116 Urban improvement schemes required either increased rates, which would be an added local burden, or grants from central government, which would imply a minor financial and constitutional revolution.

SHOULD

P. 20 But the Italian government should not be allowed by the EEC commission to put a made in - Japan label on a BL Acclaim which BL calculates is 70% British.

Europe should be urged to settle for 60%, which is a figure many

Japanese companies (eg, Nissan in Britain) are ready to accept.

What is good for the British goose should also be good for the Australian gander. They not Australia's exports of cars made in Australia, should be the target of Europe's attacks.

p. 49 Ten, BR's in-house arbitration machinery, operated by the Wilsonite peer Lord McCarthy, decided that Aslef, the small but militant union of 24,000 train drivers led by Mr. Ray Buckton, should agree to its members working a new daily work schedule of seven-to nine-hour shifts (socalled flexible rosters), instead of the existing and guaranteed eight-hour day (which tends to mean as many hours sitting about as driving a train).

On the notorious Bedford-to-St. Pancras (London) commuter route, newly electified at cost of £ 150 m, spanking - new rolling-stock remains iddle because the NVR insists that should be guards on trains designed for one-man operation.

p. 8 Exploration wells in the British sector should be at a rate of 100 a year, they reckon, not the current 70-odd.

p. 15 The four complicated taxes on North Sea oil - royalty, supplementary petroleum duty (SPD), petroleum revenue (PRT), and corporation tax - should be tax replaced, they argued, by a simple, single "progressive profits tax".

p. 71 But to meet France's claims that its traditional rights to fish in British waters should continue to be respected, Mr. Walker may be prepared to offer a limited number of licences to enable French (and other) community vessels access to 12-mile coastal belt and the box off Scotland.

p. 77 The cuts made in both business so far should reduce that loss to £ 225 m this year.

p. 85 The big new Jwaneng mine should reach initial - rated production in the next few weeks.

p. 89 A mistake, say some: Levi should go up market.

p. 93 It has (uniquely for such a project) no guarantee from the Government that, should the project fail to deliver the goods, banks will get their money back.

p. 97 She started with a discussion with Mr. Caldwell about whether she should call him "Phil" or not (he preferred not).

p. 103 The question of how quickly America should develop laser weapons, and which ones, is the subject of lively debate between the house of representatives and the senate. That speed should mean high accuracy. The senate thinks that the research should go on much as planned. Some senators even believe America should be pushing ahead to develop prototypes as soon as possible.

It believes that long-wave lasers are much less effective than short-wave (high-frequency) ones as defensive weapons, and that much more of next year's money (the Reagan administration is seeking \$ 400 m) should be allocated to the latter.

Their point is that America should move quickly with whatever technology is at hand.

p. 109 So what should one make of the latest claim, that prolonged use of benzodiazepines causes brain shrinkage (a phenomenon also caused by alcoholism)?

p. 112 Should they do it, the deed will be not merely ghastly but also ghastily pointless.

LONDON REVIEW OF BOOKS, LONDON, v. 4, n. 7, APR/MAY 1982, 34 p.

WILL

p. 3 Janet Malcolm does not suppose that her distress about a fact will stop its being a fact.

p. 15 An unsolicited carrot, offered in the hope that moral outrage and cajolery will prove the best tactics against the Eastern bloc, would be regarded in the East as a blessing on Jaruzelski to "do his best" within the present martial law framework. It is nonetheless still possible that both Jaruzelski and the Kremlin will consider economic squalor and political repression the safer option.

p. 19 Their quest is for a lost kingdom, which will remain cut off from civilisation after the heroes have done their work and gone home (usually enriched with a few pocketfuls of ancient treasure).

WOULD

p. 31 Mrs. Malcolm is too sensible to be wishing away the concept, as such, of transference, on abolition that would leave us still blundering about in our Oedipal fog but without even the knowledge that we are doing so.

But if our personalities were not precipitated by our Oedipal experience and formed by it into an apparatus that continues to pursue Oedipal shadows, the result would be that we should not be we, either as individuals or collectively, since we should be a different type of animal.

There seems also to be an implication in the paragraph that there is some method by which our individualities could have been formed that would be more acceptable.

p. 7 In practice, of course, no very drastic changes did take place, but one cannot help wondering what would have been the impact in the West of Dr. Zhivago if - as Krushchev was rumoured to want - it had first been published in Russia.

Still, any form of clock would have been a mistake.

Names strike more than they stroke, and I would like to think of him wincing as he reads, staggering under repeated blows from his own name, Larkin buffeted, not celebrated, I should be disappointed in him, too, did he not harbour doubts about the whole enterprise, echoing Balfour's remark: "I am more or less happy when being praised, not very uncomfortable when being abused, but I have moments of uneasiness when being explained!"

Spencer had been befriended by the music master, Mr. Greatorex, who had told young Stephen that although he was unhappy now there would come a time when he would begin to be happy and then he would be happier than most.

At Oxford I was sure it would be another story.

Of course, being the sort of person he was, the poor chap would have; and half - thinking it a pun - and not inappropriate at that - one or two people in the audience mew to themselves. He would also appreciate something my mother said.

He would not thank me for New York, I imagine, but if he does not feel at home here he would not feel out of place among streets like Greene and Grand and Great Jones, the cast-iron district which I see from my window. I would give him, too, any work by Edward Hopper, whose paintings could often pass as illustrations to the poems of Larkin; and in particular People in the Sun (1960).

p. 11 None of these records of female achievement dwells on the question of what would constitute the removal of obstacles for women, nor whether, if this were achieved, we should expect a matching of male and female achievements, nor what we should think if no such matching emerged.

For suppose that the answers to the theoretical questions turned out to be those which feminists would consider the worst possible case, and that the different worldly success of women and men was shown to reflect fundamental differences in their potentialities.

Even, so, there would be no good reason for setting up laws or regulations to exclude women from any lines of endeavour. Nobody doubts that even less talented men should have the chance to seek forms of education, work or political participation: hence even if all women were among the less talented, this could not provide reason for their formal exclusion. To have reason for

making sex the basis for exclusion from education or careers one would need to think not merely that the distribution of of fundamental potentialities between men and women differed, but that no women had abilities within the relevant range for many types of work of education. Only then would gender reliably differentiate the indubitably incompetent from the possibly talented. But if this were the situation, not only would there be no notable women in these fields, but there would be no need for excluding laws or regulations, for these only show, if perversely, a recognition that members of the excluded group are serious contenders for some opportunity.

p. 15 To do so would be interpreted by the Polish generals and by the Kremlin as an indication that martial law had been accepted as the "lesser evil".

Reform could then be shelved "pending negotiations between the regime and Solidarity" - negotiations with the regime would no longer have to take seriously.

From the beginning, this "New Economic History" was characterised by a distrust of literary and impressionistic evidence by a heavy reliance on quantitative data elaborately manipulated and computed, by the explicit and widespread employment of economic theory, by the careful specification and by the use of the counterfactual technique, which required imagining how an economy would have evolved if certain specified "factors" had not actually been there - a sophisticated version of the "If".

The volumes are so well - intentioned that it would be agreeable to answer positively: but it is rather harder actually to do so.

SHALL

p. 15 A few days before his arrest in November, Kuron reaffirmed his belief that Solidarity had modestly to acknowledge Poland's geopolitical situation (Poland's code phrase for admitting that it is in the Soviet sphere of influence): in other words, it must always be publicly accepted that the USSR shall enjoy military facilities in Poland and transit rights through to East Germany.

SHOULD

p. 3 She seems to imply that, but for transference, we should be able to apprehend one another clearly and love one another for what we are.

In addition to the slivers, there are substantial discussions of child analysis, from the point of view of both technique and theory, a paper on training analysis which won't be read by everyone who reads Ms. Malcolm's book but should be, a longish "study guide to Freud's writings" that is the definitive answer to the beginner's question about where to begin, and a succinct study of aggression that lends theoretical and clinical support to Freud's recognition, still not universally endorsed by Freudians, of an independent instinctual Thanatos - a recognition that would be my candidate for, in Ms. Malcolm's words, "Freud's most original and radical discovery", because it perceives that the most remarkable thing about life as a biological phenomenon is death.

p. 7 Things forbidden cannot harm art, many even be good for it (as Pushkin amusedly noted): but nothing can more effectively deprive it of real meaning than a series of constantly changing edicts about what it should mean, what it should do.

It was practically a clause in the BBC charter at that time that comedy sketches should be linked only with vocal numbers.

p. 11 While the answers to these theoretical questions are elusive, the practical implications of this obscurity should encourage rather than depress feminists.

p. 15 The crucial factor, often ignored by those in the west who argue for a continuation of détente and for a cautious encouragement of reform in Eastern Europe, is the sequence in which stick and carrot should be used.

p. 19 The white man's culture, that is to say, should be propagated in the white man's place, the temperate zone; while the Africans should be conceded a place and culture of their own.

p. 24 There has been trouble with some who have taken great care that their disloyalty should not become manifest, or who have taken cover under a more or less open ambiguity.

The unanimity here of free - enterprise conservatives and the numerous more emphatically disruptive groups should cause a little reflection.

LONDON REVIEW OF BOOKS, LONDON, v. 4, n. 10, JUNE 1982, 24 p.

HILL

p. 3 Neither of these two books will be of much help to the reader who wants to read about the strategy and battles

of any European war, or even to the reader who wants to know who won them.

p. 7 The place of his book in academic debate is assured: whether it will influence government policy is less certain.

Obviously, it will provide valuable facts and arguments for concerned internationalists everywhere: whether it will affect policy, even under some future administration, is also doubtful.

p. 11 If light filters into a room through a small enough aperture, anything moving on the street outside will cast its shadow on the ceiling and back wall, and the shadow may have only the most abstract resemblance to the original.

Plato's prisoners could escape from the cave but Putnam supposes that his brains in a vat' will never find their way into skulls placed on the shoulders of bodies that walk the world.

However, even if he fixes the truth-value of his theory in every possible world, the reference of the word "cat" will still remain indeterminate.

We need a theory that will tell us what difference itself is.

He mentions Hartry Field's idea, that it is a specific causal relation, R, but observes that his original arguments shows that the reference of R will be as indeterminate as that of any other word.

p. 19 Now that it seems the regime will not allow him to return to his job as chairman of the Literature Department at Nairobi University.

Community theatre was a possible opening, but he now fears he will be forced back into the solitary world of the novelist.

p. 22 This is one of the few areas where not even Sartre will speculate.

WOULD

p. 7 But even assuming these "near-utopian social conditions" and high rates of investment, the projections do not work for Asia: there would still be a catastrophic food crisis in Asia beginning by 2010.

Others of the world models are criticised on this score, it is admitted that with different assumptions (possibly better-founded) the global 2000 report would be even more pessimistic than it is.

If they did - as they used to - the proportion of the national income involved would be getting on for two-thirds.

p. 11 His argument is that, if the brains in a vat described in a predicament in our vocabulary, the worlds would have to be interpreted not in our way, but in theirs. The two nouns, "brains" and "vat", as used by them (impulses picked up by the computer from their motor-nerve outlets) would refer, not to the two types of things to which they refer on our lips, but only to two types of stimulation of their sensory nerve sockets or to related phantasmata in their microcosms.

For it seems to be enough for his purpose that, if the isolated brains tried to speculate about their predicament in a way that made the truth entirely independent of their methods of attaining in they would lack the resources to formulate the speculation.

If he has a theory about what he calls "cats", he will be able to tell us a lot about its interpretation by specifying the worlds in which it would be true and the worlds in which it would be false.

If all our beliefs and theories about the world are the product of some sort of interaction between the world and the mind, it would be unreasonable to ask for a specification of the world's contribution that would not itself be a product of the same interaction.

Certainly, if discussable truth were coherence with the mentalised product, it would not be worth discussing without indiscussable truth: i. e. without correspondence.

Yet Plato himself would have expelled the dramatic poets from the republic and understood the mimesis of art as a tempting source of illusion.

p. 19 We are asked to believe that a composer would identify a Chopin Mazurka to a famous pianist by reciting "the lyric", feeble stuff beginning:

p. 22 This garment, the argument runs, was already eccentric and unfashionable when his father had worn it on his rounds: it would have been "aberrant" by the time the son took it on.

No one, of course, would admit that he wrote worse than he used to, especially not by design.

SHALL

p. 7 It is not easy to engage in argument with Global 2000: but whatever may or may not be its technical imperfections

(and we shall not really know till we get to 2000, shall we), its message of foreboding is surely a correct one.

SHOULD

P. 3 It should be clear that the History of War and European Society promises to be a most valuable project, and that it has been inaugurated by two outstandingly good volumes: learned, intelligent, wide-ranging and very well written.

P. 7 It should be made clear that the authors are concerned solely with those facts which relate to Scotland, Wales and Northern Ireland, England being brought in only occasionally for comparative purposes.

P. 22 Every home should have one.

THE NEW YORK REVIEW OF BOOKS, NEW YORK, v. 23, n. 21/22, JAN. 1982, 66 p.

WILL

P. 7 And it is precisely here that I need help from all who can give it and from places where such help will have the best chance of success.

The tragedy of Liza and Alyosha continues, and if nothing changes it, will continue for a long time.

In making public this decision I hope you will understand our reasons for undertaking this action and its necessity for us as a matter of conscience, in the face of this tragic situation.

P. 16 Empty boasts. Howing, as we will see, is the least plausible of liars.

The light the author throws on the clock-and-dagger requirements of his job will fascinate those critics for whom the subsequent scandals and cover-ups at the met recalled the scandals and cover-ups at the White House.

P. 29 To Bellamy, and to people like him, this will sound like a confession of relative failure, but it is really a glancing, retrospective tribute.

But this is not Cavell's usual tone in this book and his

solemnity about film will be an obstacle for many readers.

But if they take place only there, then his offering his book as a conversation, as he does, it is a bit like saying he will talk to us as long as we are interested in his dreams.

P. 39 Jacknapes and Jeremiah, he keeps even old readers busy guessing what will happen next; as well as what's happening now.

But Barthelm will have nothing to do with mere ambulation, and we, so freshned, ask only that he continue to dip, wheel and hover.

P. 43 (...); the administration's announcement that it will board foreign-flag-vessels on the high seas to turn back illegal immigrants even if this may be a violation of international law; (...)

P. 47 As anyone has experimented with the form of the travel book will know these are common problems. If the sacks the foreign correspondence to himself, if he attends more to the tale in the Jamesian sense, if the dramatizes himself more fully, and shapes and invents with more consistency, he will (I enviously suspect) turn that journey into a classic book of travel.

P. 53 I have myself not mentioned the proper names of Cooper's principal depreciator's, but I hope people will buy or refer to Cooper's book so that their names become more widely known.

P. 66 The artistic attainments of fifteenth century Florence closely bound to the traditions and institutions of its political, economic, and social life, and the reader will get from Goldtwaite's book on the economics of architecture a more lively and more authentic impression of live in Renaissance Florence than from many more general descriptions of Florentine culture.

WOULD

P. 3 As a perfectionist in everything relating to his country, he assumed that emancipation from mere church and creed would give a special energy to the century of "progress".

But even before he reluctantly joined himself to the agitation against the Fugitive Slave Law of 1850 and thoroughly enjoyed the Civil War, trumpeting habited of the South in a fashion that would have disgusted Thoreau and Hawthorne (both died during the war and perhaps partly of it), Emerson's religious individualism got absorbed into the overwhelming push of American life.

The literature on Emerson is not about the derailed prophet of individualism that could not be lived on Emerson's terms, the nineteenth-century maître penseur who dreamed of a new world that would reflect his genius.

p. 7 It is impossible for me not to react in view of their fears of suffering caused by the fact that they are so close to me and by their confidence in me when I insisted that Alyosha emigrate, persuaded as I was that Liza would be able to join him later.

p. 16 How he and Rórimér went to inspect the contraband plaque "in a small garage on the outskirts of Genoa" - owned, appropriately, by "a swarthy man shaped like a fireplug" - and how they agreed to buy the marble, knowing that it would have to be slipped out of Italy illegally.

p. 20 From blithely confessing that "the least interest I had in life was religion" (odd, since this is the principal subject of medieval art), Howing would have us believe that his quest for the cross miraculously endowed him with faith.

p. 39 A line would presumably signify a sustained and lengthy narrative, and Barthelme clearly prefers dense brevities instead.

If one doesn't always know where to have Barthelme, he would perhaps reply that unresolved opaqueness is one of the principal features of experience.

p. 43 Burnham's main theme is the same one that has fascinated every acute observer of American politics, namely the absence of a social democratic alternative in the US, either as an organized political movement in which the relatively poor would find coherent representation for their interests, or simply as a political idiom.

Had it existed a strong social democratic movement would have organized and imobilized them politically. It would also have influenced the language and thought patterns of the middle classes, making legitimate the issues of income distribution and the regulation of corporate power and thus permitting class coalitions.

p. 47 They provide all the material for a patterned story, but this book is not that story: at best, it is fragments, episodes, notes, drafts of a kind that would lead one to say that this is going to be a wonderful book.

p. 54 If any such procedure were applied to the brain the patient would end as a human vegetable, for functions and faculties are to so high a degree localized in the brain that every brain surgeon operates in the that his operative procedures cause functional damage as great as or even worse than that which he is seeking to relieve.

He had high hopes of the meeting and of the effect he thought

his contribution to it would produce, but in the outcome he was bitterly disappointed: having said his piece and shown a film to an interested minority of the audience he returned to the lecture hall and found himself the subject of unfavorable comment.

p. 58 When the academy met he spoke in terms as close to a retraction as a man of his character would be likely to use.

p. 66 After listening to arguments on the matter by several leading masons and architects, each quest spoke his own opinion, and then they voted along with the committee, thirty to seventeen, in favor of three doors, although twenty would have preferred to delay a decision until they could see models of each solution.

SHALL

p. 29 Cavell speaks of living with the sound of Wittgenstein's Philosophical Investigations, and I shall live happily for some time with the sound of the claim of Reason.

SHOULD

p. 7 But that my son and his wife should be used as an instrument of vengeance in an attempt to bring pressure on me unworthy, illegal, and intolerable.

p. 24 If the Hoving approach is truly a thing of a past, the Met should be given all the support that the art world a general public owe it.

p. 47 If only Gavin Young had lightened ship by throwing overboard everything that wasn't essential to the quest which should have governed his narrative, he would have written a really fine book.

p. 62 We should not look therefore in Trexler's book for a strict application of critical historical standards.

THE NEW YORK REVIEW OF BOOKS, NEW YORK, v. 29, n. 1, FEB. 1982,
36 p.

WILL

P. 12 It claims that it will improve the position of Jews in the political world because it would base relationships on the facts of power rather than on vague humanitarian emotions.

The far greater dangers, for them, are that Begin and Sharon may really get what they seem to want, that Israeli will become American's only ally in the Middle East, that its current borders will be the place where the boundary is firmly drawn against Soviet power and influence, that Israel will become a co-guarantor of America's interest in the Persian Gulf.

My own fear is not that Begin will fall but that he will succeed.

No matter what else happens in the autonomy negotiations, Begin's government will insist on having control land and water on the West Bank - and land and water are the central issues.

In a few years, therefore, Israel will consist internally of three main groups. First, a strong electoral majority for the Likud, made up largely of Jews of North African origin; second, a minority, consisting of most of the Jews of European origin, increasingly fragmented across a wide spectrum of political and social beliefs; and third, a growing minority of Arabs who will be increasingly sullen and perhaps mutinous, and who will have the support, however hedged, of every Arab State.

If the Begin government succeeds, and Israel becomes America's principal strategic ally in a turbulent region, it will have to be accommodated in any changes of American strategy, or in some possible global deal with the Russians, while ruling over more than a million Palestinians.

P. 16 This was a study of the logical structure of the decisions made by a player in a game such as poker, in which the aim is to make moves that will give the greatest chance of financial gain and the least risk of loss. The rules resulting from this theory depend on considering what the adversary may do, and ensuring that the player will not be left at a disadvantage by the most skillful play of his opponent.

P. 24 He predicted, however, that the cure itself would end by giving him an extreme and permanent disgust for writing about ordinary life.

P. 32 Nor is any of this the same as the aspiration, which he also expresses, to make a philosophical work that is more like the many - columned Parthenon than like a tall, thin tower, so that when bits fall down as they will, something of beauty may be left.

Nazick denies this, and claims that whomever will be in the

future depends on the available candidates.

In the first case, you will be Y, since there is no better candidate; in the second case, you will not be Y, since there is a better candidate.

It concerns a group of émigré philosophers who will be the Vienna Circle if there is no other and larger group of émigré philosophers, elsewhere, but will not be if there is.

But even if this is so, it will not answer the question that many will feel most needs answering: how can this be the right answer for.

P. 36 Its principal inhabitants are the actors with whom Professor Barish is so greatly concerned; but the director who leads them where he will and shapes the play according to his own views never gets into the book at all, though he is often the reason for antitheatricalism at its most violent and indignant.

Finally, the need for simplification, for cutting, for avoiding painfully long words, for letting one example do the work of a dozen is evident in every page - along with the feeling that so long as there are foundations ready to support the writing of such books, their authors will never feel the need to bring them to an end.

WOULD

P. 4 If readers had only this one chapter to go on, they could not help believing that antebellum America was latently revolutionary, not to mention wondering why any European in his right mind would ever have come here.

In other words, the "tragedy" for Burns lies in the fact that those poor benighted people back then were not more like us - or more like the citizens Burns would want us to be.

P. 6 Art's other Andy, the Wyeth, would not do that. Nor would the midcult heroes of The Agony and the Ecstasy and Lust for Life. They would discriminate between experiences, which is what artists are meant to do for us.

P. 3 But for the safety valve of Studio 54, he would presumably blow off like the plant at Three Mile Island, scattering the culture with unimagined radiations.

So he must introduce small variations into the package, to render the last product a little obsolete (and to limit its proliferation, thus assuring its rarity) for if all Warhols were exactly the same there would be no market for new ones.

The lady in Texas or Paris would not be subjected to the fatigue of long scrutiny; in fact she would feel rather like a Vogue model, whether she looked like one or not while Andy did his stuff with the Polaroid.

P. 12 The American Jewish community as a whole was persuaded to support Zionism after 1945 by the vision of a Jewish state that would redeem the victims of Hitler and build a benign society that could be "a light unto the nations".

In their declining years, Weizmann and Ben Gurion both thought that the looming danger to Israel was its increasing embourgeoisment, the rise of a new class which would soon become addicted to privilege. Neither of them expected that the sountervision of an Israel that is respected above all for its military and strategic power would actually be installed in office and reflect the mood of a new majority.

It claims that it will improve the position of Jews in the political world because it would base relationships on the facts of power rather than on vague humanitarian emotions.

In some later versions of this demand, the leaders in the Jewish state are charged not merely with creating conditions in Israel to receive many more Jews but also with managing Israel's policy so that the choice to settle in Israel would become more likely throughout the Diaspora.

The antagonists were the Zealots, who kept insisting that Jewish dignity demanded Jewish armed revolt against the Romans, for Jewish power would somehow prevail, and Jochanan Ben Zakkai, the leading rabbi, who counseled political prudence and insisted that the cost of war with the Romans would be strife among the Jews and the destruction of Jerusalem.

P. 12 Contrary to the grand strategists in Jerusalem, an untidy region, increasingly neutralized-- in which some progress was made toward separating the West Bank from Israel - would be a far safer place for Israel itself.

P. 20 If the feast is held outdoors, a long picnic table with benches or doors on top of trestles and bales of straw would be effective.

P. 28 Mann would have agreed with Diane Arbus that freaks are aristocrats.

P. 32 At times, Nozick starts at quite a distance from the facts and constructs a model of how things might be, the main point of which seems to be that the world would be a better and less squalid place if that were how things to be turned out to be.

What launches them is the feeling that everything would be higher and more inspiring if things conformed to Nozick's model, and it is that feeling, together with a certain tone (of which more later), that grounds the fear that this book is trying to do a dreadful thing: to lead philosophy back to an aspiration

from which the work of this century has done so much to release it, the aspiration to be edifying.

P, 36 Craig was a revolutionary who dreamed of a new theater which would be dominated by the visibly spectacular instead of by texts and "ideas".

SHOULD

P, 8 As social amenity, it was an adroit solution; and it still left room for people who should know better, like the art historian Robert Rosenblum in his catalogue essay to Warhol's portrait show at the Whitney in 1979, to embrace it: " ...".

P, 12 The distance between the neoconservatives and the Reagan administration has been widened by the Polish crisis, for the neoconservatives think much harsher action could and should have been taken against the Soviet Union to support Solidarity.

Anyone who loves Israel should fear for its very life if this were to come about.

P, 20 When it comes to recommendations, the reviewer of cookbooks should probably characterize her own point of view.

p, 24 Flaubert wants to maintain a double purity. (It should also be clear that in Flaubert's hands, the grace and distinction of the style is a brutal, although oblique, comment on the triviality of the culture portrayed).

P, 32 After the hard scandalous success we should not be too surprised to find now a book that has deeper and more spiritual ambitions, which covers many large traditional subjects, and which devotes the same outstanding talents not just to solving puzzles or showing off, and not at all to slamming the pious, but to reaching toward more speculative, and awesome reflections on the meaning of life.

The idea, borne by his title, is that philosophy should try to explain things, rather than other proofs.

I have already mentioned, the explanation of why what seems to us to be so should seem to be so if in fact it is false.

THE NEW YORK REVIEW OF BOOKS, NEW YORK, v. 29, N. 2, FEB. 1982,
40 p.

HILL

p. 3 (...) they can get by with very little effort at work, they enjoy security, many learn to fiddle the system with profitable results, and even if living standards are low, they have risen in past years and there is hope that they will continue to improve.

p. 7 After this in brief further meetings, Felice will be the wooer Kafka will listen with detachment but will refuse.

p. 16 If decisiveness is restored, if Washington leads again, the allies will stop bickering with us or among themselves and be grateful for clear leadership.

Seven: The next few years will be particularly dangerous because of the "window of vulnerability" - the vulnerability of America's land-based missiles, and that of military targets in Western Europe to the SS-20 and the Backfire bomber: these imbalances must be eliminated as fast as possible.

Nine: The solution to the problems faced by the countries of the third world will be provided mainly by their own efforts, and residually by foreign assistance, but in both cases private enterprise is the key, capitalism the answer.

If the budget deficit-which recession will worsen - and the inflationary effects of military spending should first slow down the decline in interest rates which results from the recession, and later produce a new increase of these rates (should, in other words, the anticipated recovery not occur), Congress will have to choose between highly unpopular further cuts in the civilian budget (cuts which would, this time affect the voting middle classes, and not merely or primarily the nonvoting poor), higher taxes, and cuts in the defense budget.

p. 20 While the economic conditions in the advanced nations make concessions to the demands for a "new international economic order" unlikely, many of America's allies, both among the developing and among the industrial nations, are unhappy with America's lack of response and its apparent belief that the market, or existing international financial mechanisms, will be able to cope with the formidable problems caused by the slowing down of growth in the industrialized countries and the financial plight of many of the developing countries.

Nor has it prepared a new plan for the period after April 1982, when all the trints of Camp David will have been consumed, and when Egypt will probably try to build bridges to the other Arab states.

His moves actually make it more obvious than ever that the Camp David process cannot go beyond the restoration of peace between Israel and Egypt, more certain than before that Egypt will, after April, seek to rejoin the Arab side, and more likely that

the Arabs will try to overcome their divergences.

The coming vulnerability of land-based missiles will force both sides to choose (in the absence of arms control) between costly, internally disruptive, and fanciful (or nightmarish) attempts at mobility and the kind of fitters that lead to thoughts of preventive strikes.

The coming proliferation of cruise missiles will heighten insecurity all around. We will be living increasingly in an absurd world, in which there will be too many uncertainties to be sanguine about the ability to keep war limited if nuclear weapons are used, and in which this danger is likely to keep such weapons from being used even though conflicts armed and unarmed, will persist.

The accumulation of nuclear arms will thus be both a huge waste and a potential calamity. Finally, political and economic conditions in this world, and particularly in many of the countries that are currently our friends or clients, in Africa, Latin America, or Asia, are such that some understandings with our chief rival about the management and limits of the competition will be essential. Indeed, it is only if such understandings develop, and if the tone, level, and nature of the contest get milder, that those armament measures that are in fact necessary (such as the strengthening of command and control procedures) will not also appear as threatening, and that ultimately some liberalization of the regimes in Eastern Europe might be achieved.

P. 24 Instead of imagining an other on whom to smear the hostilities and inadequacies of her inner nature, she will die as the outer, beguiling social person and be reborn as the vengeful "true" self.

The role of martyr gives way to that of assassin. Like a phoenix, the speaker will come back:

P. 28 This is the background that made for a snongrel who professed the rational materialist creed of eighteenth - century philosophes while upholding, within his own family, the more of the ancien régime: who had entered a class inherently bound up with ideas of movement, progress, and individuality, but who himself set store by the generational redundancy of his father's world; who aspired to place the Flauberts in the upper reaches of the Rouennais bourgeoisie and yet always, during his medical rounds, wore a goastkin coat as rustic as thatch, which would eventually fall upon his elder son Achille, like a royal mantle, or a straitjacket.

P. 36 There are, he argues, only two things left that distinguished men from women, and the unisex movement will do its best to extinguish the difference if it can.

P. 40 No one will use an "intelligence" test that gives highest marks to those children everyone "knows" to be stupid.

The thought here is, of course that what gets counted as "intelligence" will vary from culture to culture and from time to time, in the way that, say, judgements of physical beauty vary historically and culturally.

WOULD

p. 3 Lenin's main theory was based on the thesis that left to themselves the workers would never carry out a revolution.

Unless the idea of revolution was put into their heads by clever intellectuals ("brought from the outside", as Lenin put it) workers would content themselves with "trade-unionist" demands for better wages and working conditions.

As one of the shrewdest correspondents on Polish affairs, Mr. Ascherson can draw on a good-deal of experience for his narrative, which takes us up to mid - 1981, when it was becoming obvious that the compromise under which the party retained formal monopoly of power, "while Solidarity guarded the achievements of Gdansk and the interest of the working class, "would" not work.

But it would be surprising if a communist regime could hope to survive as such while an independent trade union movement, attracting thousands of members of the Communist Party to its ranks, was in operation at the same time.

But that this extreme result was impossible, because it would almost inevitably provoke a Soviet invasion, with all its disastrous consequences for Poland, was recognized throughout by Solidarity, and acted as an unnatural restraining influence.

p. 7 Whatever he would eventually say of her in disfavor years later, in the dark pages of his diary, his relations with her certainly led to a great release of his imaginative powers.

What he did not suspect was power as terror that is to say, the lengths power would go to. Had he survived there would have been no trial: he would have die in Auschwitz as his beloved and heroic sister Ottla and her schoolchildren did. Power would become barbarous. It would exterminate.

p. 11 Odets, in turn, would soon be joined by every major member of the company: Stella Adler (who changed her name - and nose - to adapt to her new surroundings), Luther Adler, John Garfiel, Bobby Lewis, Lee J. Cobb, J. Edward ...

p. 16 If coherence and consistency of views were the only conditions necessary to produce an impressive foreign policy, this new orthodoxy would deserve the highest marks.

p. 20 It would have to be prepared in cooperation with the so-called moderate Arabs - the Sandis, Jordanians, and Egyptians - and, through them, with the P.L.O., as well as with the West Europeans.

And it would require a willingness to confront Begin - not only to stop him from impeding peace but also to push him toward a settlement.

As for economic sanctions against Moscow, however justified, they are being resisted or resented by our allies, whose cooperation is indispensable to the success of restrictions on the sale of industrial products or technology, and they risk leaving us without any further political instruments to use in the event of Soviet military actions in Poland (except for a total ban on trade, which would have little effect, and for one more suspension of arms control talks, which would be contrary to our interests).

p. 24 Yet capitalists and aspiring capitalists do not normally become radicals or socialists, and it is hard to see how attempts to win over the Slovak peasants or the Budapest industrial workers before would have helped the Jews in 1944. And even if a combined opposition of Jews, Slaves, and proletarians could have put an end to the aristocratic-gentry system of old Hungary - a system which had liberated the Jews - there is little guarantee that the new, more egalitarian regime would have been kinder to the Jews in 1944 than Admiral Harthy's conservative regime proved to be.

But, in view of the sufferings caused by the war, perhaps all of these associations and identifications would have been made in any case, even if Georg Lukacs and his fellow Jewish intellectuals had not attempted to create their communist utopia in Budapest in 1919.

p. 28 Had life followed a customary course, Achille-Cléophas would have practiced veterinary medicine in Champenois boondocks, like his father and uncles.

Some other waif might have taken vows and entered a convent, Caroline who would settle for nothing less than a literal troth with God, happily set up house inside Achille-Cléophas's ego and made it a quasi-religious stronghold, which would secure her from her own history of death, remorse, and separation.

Had Achille-Cléophas acknowledged in her an independent being, his liberalism would have been wasted upon a woman - Sartre persists in calling her a "Stalinist" - for whom independence signified exile.

Between the heir and heiress came Gustave born eight years too late to enjoy that Sartre would have us think were the fatal blessings that attended primogeniture in Achille-Cléophas's kingdom, and the wrong sex to command Caroline's tender devotion. If his were not reason enough for feeling de trop, the fact that several infants had died before he arrived (there

would be one more death when he was eighteen months old) cast a shadow over his cradle.

Painful scenes followed during which he would ask why on his own account should be necessary since an old friend read to him.

P. 32 I would cite two reasons for regarding the failure of critical faculties and the decision to accept improbable hope as rather more tragic than merely amusing.

Creationism may have its roots in indigenous American populism, but its exploiters and fund raisers are right-wing evangelicals who advance it as just one item in a comprehensive political program that would also ban abortion and return old-fashioned patriarchy under the guise of saving American families.

P. 36 In fact the counsel for the prosecution (who in opening his case delighted everyone by asking the jury whether they would care to leave his book lying around in their homes to be seen by their servants) toyed with the passage and then said, "I don't know what it means".

It might have been thought that if only out of friendship for numbers of his old friends who would no longer be under threat of blackmail and could benefit from such liberal legislation, the warden would have supported it.

It would not be too difficult to show that these essays do not run deep.

P. 40 Would Lewontin say of these tests:

SHOULD

P. 3 It should be emphasized that the whole of this first report is based on high regard for true socialists principles - there is no hint of a desire for the restoration of capitalism.

Logically, its outcome should have been the overthrow of communist rule.

P. 11 But if the Group was not noteworthy for the deathless quality of its plays, it was by most accounts unmatched in the quality of its playing - and by comparison with most of the trash being acclaimed on Broadway at the time, even its plays should have been recognized their superior scope and commitment.

P. 16 If an ideology is a set of beliefs about the state of the world, about how it got to be that way and about what should be done to change it, the Reagan administration came

to power with an ideology of foreign affairs.

Five: It should be the policy of the US to mobilize as many states as possible against the Soviet danger.

Eight: The United States should cease being always on the defensive, allowing Moscow to pick the ripest opportunity.

p. 24 Braham and others suggest that the Jews should have abandoned the theoretical liberal but in effect conservative, government of pré 1914 Hungary for bourgeois-radical or socialist opposition to that government.

p. 28 Painful scenes followed during which he would ask why reading on his own account should be necessary since an old family friend read to him.

p. 36 It is, of course, insulting when well-meaning people, who have no conception at all of what it is like to be homosexual, argue that society surely should not punish those afflicted by a disease.

Just as he admitted that he could not really judge whether Lady Chatterley should or should not have been censored, so he can produce all the arguments for capital punishment yet in the end admit that the humanitarian case which he so much despises must carry the day.

THE NEW YORK REVIEW OF BOOKS, NEW YORK, v. 29, n. 3, MAR. 1982,
45 p.

WILL

p. 20 It is for its authoritative account of the genesis, stage history, and revision of the late operas that Volume 3 of the Operas of Verdi will be most gratefully read.

p. 28 Few careful students of Baudélaire will think this is the way to grasp his mind.

Once away, we are assured that what we have learned about Saint Petersburg wile "provide clues to some of the mysteries of political and spiritual life in the cities of the third world in Lagos, Brasilia, New Delhi, Mexico City".

All that is solid, etc., is, in short, a remarkably open and undefended piece of writing; a critical reader will often find it injudicious, even silly.

WOULD

P. 3 Second, even if such conflicts existed and were very general, they would indicate only that economic egalitarianism can conflict with other types of equality, and not that economic egalitarianism is not "an appropriate goal".

P. 8 It would have been possible to dramatize the Chicago novel another way.

This would have provided a dramatic, active, involving novel with a climactic courtroom scene, or whatever. But is not the novel Bellow, a masterly novelist, chose to write, perhaps because it would have deprived him of Rumania, and the implicit contrast of a regimented society with our chaos, but also perhaps because this more conventional structure would have required a resolution, some ending, unhappy or happy, to suspense; and that in turn would provide a satisfaction that would belie the view of contemporary life is taking here.

Yet to resolve the huge problems that engage Corde, by prescription on the one hand or catharsis on the other, would produce a reassuring work. But reassurance, more suited to the matters of the individual soul than to the body politic, would falsify the subject here.

P. 28 One discovery of the final pages, would have been more valuable had it been applied to earlier sections of the book.

P. 32 There is nothing anecdotal about Courbet's Burial at Arnans: we do not know. Who is being buried and we would not be hairbreadth closer to understanding the picture if that question could be answered.

Without these features, Meissonier's canvas would be simply a documentary and picturesque view, like the painting of the same motif also in the Cleveland show) by Isidore Pils.

P. 36 The measures they took did not in themselves exclude all possibility of a Brezhnev dictatorship, but they did ensure that Brezhnev's bid for power, if launched, would have to be fought out within the confines of the Politburo.

As long as the Central Committee or the Party Congress continued to serve some purpose, there was always the danger that the general secretary, armed with the weight and prestige of his office, would appear before them and win them to his side.

P. 40 Moreover, allowing for differences of emphasis, members of this Groups spoke of détente in very much the same way. Brezhnev would couple his defense of détente with hard-line calls for ideological and military vigilance. Suslov and his hard-line associates would combine their calls for vigilance with justifications for détente's achievements.

p. 44 Since the Times microfilms only the late edition, an article seen by Story in an early May 3 paper would appear on the microfilm for the day before.

I would like to address a few of the issues Mr. Adams raised.

SHALL

p. 3 I shall argue that Bauer's approach in spite of its power and appeal - is fundamentally flawed, and that his analysis cannot bear the weight of the conclusions that he rests on it.

SHOULD

p. 16 Ironically, the prize goes to Kojran who was about to depart to America leaving him worried about where he should go first.

p. 40 It may be that neither of the two phases should be attributed to Brezhnev at all, and that both détente and its sequel are as much a product of collective leadership as, say, Soviet agricultural policy. Looking back at the early transactions of détente from the perspective of 1982, one finds it hard to see why their negotiation should have been a matter of serious controversy on the Soviet side, splitting the leadership into hawks and doves, and requiring as a conditions of acceptance the backing of a single powerful patron such as Brezhnev.

p. 44 There should be no mystery why I am so concerned with the "numbers game" of Philippine death.

We all want to "save" the university. But we should be clear as to what kind of a university we think is worth saving.

SATURDAY REVIEW, DES MOINES, IOWA, JAN. 1982, 234 P.

WILL

p. 44 To get the real fitness-resort experience,

remember, three basic principles: work on everything at once exercise, diet, attitudes, habits (no smoking!): try to build in at least a few routines that will last, something you'll do every day from now on (like running before breakfast).

p. 66 A major theme on both sides of the Atlantic is that if we begin cutting back on nuclear-weapon production, Moscow will do the same.

p. 70 Unilateralists must surely spell out an alternative defense policy. Certainly the Russians will do little serious negotiations with powers that unilaterally throw in their nuclear hand.

p. 185 The opposing, imitator, theory says that the more pornography a male sees the more likely he will be to commit sex crimes.

p. 220 I trust that no other Secretary of State will find himself accepting the resignations of both our highest elected officials within the space of ten months.

p. 232 If he confines himself to riding with the trend, he will soon become irrelevant; if he goes beyond the capacity of his people, he will suffer shipwreck.

WOULD

p. 17 My husband was nervous about leaving me home alone while he attended classes, but I assured him that if I needed to go to hospital I would have him paged.

p. 22 "Whatever else people can take away from you", may father would say, "they can't take away what's in your head"?

p. 32 ABC's 20/20 was there to interview him, and one Santa Fe dealer remarked that if Fowler had known that he was going to be on TV, she would have bed a million.

p. 34 It has ivory handles and elegant gold engraving on its coal-black steel, and though it has perfect balance, it would seem a sacrilege to shoot the thing.

p. 35 This would present no problem to critics and curators if they could get the right theoretical fix on it.

p. 40 When forced by Kravitz from her position, Chase said that she would neither resign nor retire but that she would simply "relinquish" her post.

p. 55 I don't suggest that there ought to have been a homosexual relation between them: but this intelligent priest would have had some knowledge of this attraction, curiosity some sense of forbidden mysteries in the youth, possibly some fear of them.

p. 66 Only the U.S.S.R.'s fear that we would use tactical nuclear weapons against Soviet tanks has prevented this.

p. 74 Then he would be forced to develop other muscles. He would never be physically normal, but he could think and feel.

p. 73 But he shook his head and said that if I did not smoke then neither would he.

p. 82 Sometimes Papa would go out with us, but not on "foolishness" like a hike.

p. 86 Then would come a plaintive little cry or the child's fingers would wiggle.

He concluded that it would be tight. Maybe impossible. Normally, to dig this deep in sand, he would open the surface 50 feet across and slope the sides. But there was no space. He would have to dig straight down 20 feet, the limit of the boom, and he had never never done this before.

p. 94 "What do you think of it?" one man would ask another.

p. 93 In a 1959 study, male students were asked if they would marry someone they did not love but who was agreeable to them in all other respects; 60 percent said no.

p. 110 To follow Stockman's advice and increase taxes as a budget-balancing effort, said Kemp, would only accelerate the process.

p. 122 Research might yet yield a pheromone that would trigger the fear and flight mechanism in other insect pests, such as mosquitoes, which locate targets by odor.

p. 138 Washington would relieve the states of their share of the rapidly growing Medicaid costs (almost \$ 14 billion in 1981). The states in return would take full responsibility for two programs that about equal Medicaid costs: the food-stamp program and Aid to Families with Dependent Children (AFDC).

p. 146 Our aim shouldn't be to avoid stress completely, which would be impossible, but to recognize our typical response to stress and then to modulate our lives in accordance to with it.

We've discovered that there are two main types of human beings: "racehorses", who thrive on stress and are happy only with a vigorous, fast-paced life-style, and "turtles", who require peace, quiet and a generally tranquil environment - something that would frustrate most racehorse types.

p. 189 Outside the seclusion of his San Clemente retreat, the country buzzed with heated speculation about whether he would survive as President.

He had never wanted a strong Secretary of State; foreign policy, he had asserted in his 1968 campaign, would be run from the White House.

p. 196 From the Chinese point of view, the worse U.S. - Soviet relations were, the better would be China's bargaining position with respect to both superpowers.

I stressed that despite Chinese reservations we would pursue negotiations with Moscow that we considered in the common interest.

But we would give Peking advance information; we would make no agreements aimed against China.

p. 204 Our definition of honor was not extravagant: we would withdraw, but we would not overthrow an allied government.

p. 208 A sincere attempt would be made to improve relations with the Congress.

It was like living on a volcano: those of us who sought to keep the government going had no idea another eruption would start.

How Nixon would have used these tapes had his Presidency run its normal course, I cannot say.

p. 212 I could not go to Congress with a warning because I would have been at a loss to recommend a different course of action.

I would not have chosen the role, and I surprised myself by not feeling up to it, though I tried hard not to show it.

The situation imposed a style of diplomacy leaning toward the spectacular; a show of driving self-assurance that would cause potential adversaries to recoil from a challenge.

We needed a visible, if necessarily theatrical, affirmation that America would survive its anguish and still build a better world.

p. 216 The foreign minister wanted to reaffirm unambiguously that any military agreement between China and the United States would lead to war.

Final peace would depend on a subsequent negotiation with the

Palestinians; the arrangement would be guaranteed by the great powers.

P. 220 Thus Israel would be freed of the need to maintain exorbitant reserve stocks during the battle.

For 15 minutes everyone submerged his private fears and doubts in warm feelings toward this quintessential American who, it was subconsciously felt, would soon take over leadership of our country.

The next morning, Nixon was exuberant over achieving surprise in naming Ford, who (he reasoned) would dampen desires to impeach him, because Congress would not want to risk placing a supposedly inexperienced man in charge of foreign affairs.

P. 224 He insisted that all follow-up cars leave immediately; he would not move so long as the Secret Service and the journalists were his motorcade.

P. 228 There would be a meeting that afternoon between the President and a delegation of Key Republican leaders of the Congress that might well prove decisive.

I knew the way each minute would now seem infinitely precious and inexorably terminal.

SHOULD

P. 62 Such women, he suggests, should be tested for diabets and strongly urged to reduce.

P. 90 For a man who once outdrove Jack Nicklaus by 100 yards, and is regarded by Ken Venturi as one of golf's finest shotmakers, there should be more than eight tittles, and his carrer earnings should have soared beyond one million dollars.

P. 114 We should not, however, underestimate the importance of that 17 percent.

Anyone who takes medication and has a sexual problem should discuss it with a doctor.

P. 146 If a danger does exist, it is that some people mistake their own type and push beyond their normal stress endurance. That should be avoided.

P. 181 Finally, Roberta convinces herself she should not mention the books and magazines, and she shows them back into the closet.

p. 185 Roberta, who found those books and magazines in her son's closet, should not have stifled her instinctive feelings nor should any parent.

p. 224 As we headed for Los Angeles, Nixon suddenly conceived the idea that Rebozo and I should see not only his origin but how far he had come.

p. 232 It was only natural in a way that Nixon should spend his last solitary evening in the White House seeking to distill some positive meaning from all those years of exertion.

SATURDAY REVIEW, DES MOINES, IOWA, FEB. 1982, 73 P.

WILL

p. 17 In special projects, too like the current PBS series, creativity with Bill Moyers, which began airing last month and will run until April.

The two series, on creativity and on Mortimer Adler, will be his last for PBS.

But the fundamental reason for the move is that Moyers believes PBS will no longer be able to afford the sort of shows he wants to do.

p. 18 Moyers says he's thought a lot about how cable TV will affect public television but has come to no definitive conclusions.

p. 32 The big celebration will be a three-day affair in March at the University of West Virginia in Morgantown.

This made possible the two volume biography by her nephew, Quentin Bell; the six-volume collection of letters; the diaries, which will run to five volumes; a rash of critical works based on the new papers, including early drafts of fiction and voluminous notes on her reading.

p. 36 Now after suitable preparation, the met will open this month its \$ 18.3 million. Michael C. Rockefeller Wing, named for Nelson's youngest son who was lost in New Guinea in 1961 while collecting artifacts.

p. 42 Perhaps the most important aspect of the installation, according to Douglas Newton, is that it will "change people's view of art, help them to realize that primitive art isn't a backwater of art history, but a major theme".

p. 47 Martha Graham, the most famous product of the company run by Ruth St. Denis and her husband-partner, Ted Shawn, will be 88 when she brings the Martha Graham Dance Company to the New York City Center for a June engagement.

Someday, appropriate members of the medical profession will make appropriate tests based on appropriate statistics and come up with scientific answers.

p. 49 And only the ultra-scholarly, or credit readers, will guess for a moment that the squeaks, squeals and jabbers of the proto-humans aren't just zoo sounds or actors' improvisation.

p. 50 The verdict is rigged against them so that they will accept backup jobs for a male star. That theme is cultural integrity: A black entrepreneur tries to shift his singers from black rhythm-and-blues into what he thinks will be more widely accepted white popular modes.

WOULD

p. 20 Moyers on screen asks the questions we ourselves would like to have asked and, unlike most of us, never interrupts the answer.

Now McMillian wanted Congress to change the law so the consumers would pay the bills - in advance.

p. 24 While starring in the Paris series three years ago, Jones worked closely with the creators to insure that the program would have a distinctive flavor.

James would go to his paternal grandparents in Memphis, who had agreed to raise him as their ward. He still remembers the trip: His grandfather Connolly and his uncle bundled him into the car and placed him atop an old mattress that the three would use for sleeping.

p. 26 In the next few years, he went on to play minor Shakespeare roles (Oberon, Abhorson, MacDuff, and Caliban), bringing to them the slow grace, the physical potency and the concentration that would mark his mature work.

p. 27 Haunted by a sense that the country would experience urban warfare, he had no desire to be caught unprepared.

He has made his own retreats - first lapsing into stuttering, later withdrawing from the world to determine who would run his life.

p. 34 One would, hate to think it was prurience - a sick fascination with the sickness - that attracted any part of her following.

The amateur view is that Woolf's best, most enduring works were her essays and literary reviews. (She would not have agreed).

p. 45 A Picasso exhibition attracts many more people than a Stravinsky festival would.

A Kandinsky or Klee exhibition would attract many more people than a Schoenberg festival, for instance.

p. 47 Alonso told me that if she ever says farewell to Giselle, she would like to do it with the American Ballet Theatre, were she danced the ballet for the first time more than 40 years ago.

p. 49 Were it not so bloody and violent, I would recommend this extravagant work for the kids.

SHOULD

p. 22 Jones never heeded the conventional wisdom about what roles an actor should take and he doesn't even have a manager.

p. 48 He, his wife, Beth, played by Sissy Spacek, and their other young compatriots felt secure at all times; should anything adverse happen, a friend notes, "Our Embassy would go bananas".

Ed Herman, himself, a Nixon supporter, felt confident that Washington would help; even when he set out, after Senators, Congressmen, and the State Department offered no answer to Charles's whereabouts, he was confident.

TIME, CHICAGO, V. 119, N. 1, JAN. 1932, 80 P.

WILL

p. 22 Jaruzelski's brutal crackdown will only multiply the problems of governing Poland and building its economy.

That mistrust will run even deeper now that the officer who had promised never to shed Polish blood has done so.

But the IMF will undoubtedly demand painful economic reforms for a Communist regime. Among them: decentralized planning and a price rise that would lower the standard of living in any event, the presence of martial law will indefinitely delay IMF action on Warsaw's application.

If it comes to that, a chapter of Polish history that began in hope will truly have ended in catastrophe.

The Poles will not forget - they never have.

P. 26 A compromise will take time and given the seerviving habits of British civility, will probably succeed. Diana should some day be able to pop out a sweetshop and buy a tube of fruit gums without making the front page of a tabloid.

P. 30 If they feel it necessary, the curators of Communist power will not hesitate to teach the world again that they will not give it up.

P. 34 Hence areas of turmoil will remain targets of opportunity for Soviet intervention and influence.

Another possibility - also remote but still worthy of concern - is that the international conflict, which Communism both feeds and feeds upon, will get out of control in a way that proves cataclysmic for everyone. Lenin's "who" and "whom" will both be losers.

The fundamental deception of Marxism - Leninism - its subjugation of economic health to military strength - will finally cripple the whole, muscle-bound organism. Or if it does not die of creeping economic disorders, it will be incapacitated by what Secretary of State Haig diagnosed last May as "spiritual exhaustion" and "ideological sterility".

In order to save itself from economic disaster, the Soviet system will be not only reformed but transformed into something less oppressive and aggressive than it is today. In other words, if the illness does not kill Communism, the cure will.

P. 46 Clovis Maksoud, the Arab League's observer to the United Nations, cast the case in terms of whether the U.S. will allow "Israel to exercise legal authority over Arab citizens".

P. 50 Thus, many European and American moneymen believe that the Soviets will eventually be forced to help pay off the Polish debt in order to keep their own lines of credit open in the West.

Bankers and politicians expect that sooner or later the Soviet financial umbrella will be raised over Poland. But the real beneficiary of such action will not be the Poles but the Western financial institutions that have been lending money loosely in Eastern Europe.

So the best gage - in chartist terms - for Wall Street activity in 1982 is Super Bowl XVI, which will be held on Jan. 24 in the Silverdome in Pontiac, Mich.

P. T6 Both are needed to accomplish the program's long-term goals: to move the economy to another growth path in which exports will become a major source of income.

Inevitably, the rate of de-escalation will taper off, but the downward trend should continue.

P. 10 Bringing the balance of payments into equilibrium will not be easy either.

Adjustments will continue during the "Shake-down" period. The high interest rates and squeeze on credit will, over a period of time, drive more business into financial difficulties.

Unemployment will continue to be a problem. Turkey's population growth rate and very young median age will likely require the government to act more directly on the unemployment problem in the future. The pressures caused by the rural migration to the cities will aggravate these problems.

The SEEs will have to become efficient, and less of a burden on the economy. Major efforts will be required to restructure them and to infuse the enterprises with new technology, management and accounting practices.

P. 14 Public works projects, including the opening of new airports at Izmir and Mugla and the completion of a new coastal highway along the Mediterranean will contribute to the infrastructure necessary to attract investment in recent accommodations.

While the government is attempting to provide the needed infrastructure, private investment will be required to develop adequate and appealing tourist facilities.

T. 14 Though the introduction of investment and export incentives the government hopes that more private Turkish and foreign investors will take advantage of the financial opportunities in processing, packaging and marketing agricultural products. Almost any type of investment which will ensure the technological development of agriculture is welcomed.

No doubt, this share will grow as demonstrated by the 100% increase of industrial exports during the eight first months of 1981.

P. 50 Investors will not have to wait as long to see if another of LeFevre's theories proves correct.

WOULD

p. 18 But the Soviets also realized the diplomatic and economic consequences would be costly; they would risk armed resistance by the proud Poles, exacerbate relations with the U.S. and Europe, affront the Third World Nations they were so ardently wooing, and take on responsibility for the Polish economy.

p. 26 The victory staved off what would have been a humiliating public defeat but did little to advance any coherent U.S. strategy for bringing peace to the Middle East.

But, to use a show-biz term that the President would appreciate, his own whirlwind first year has given him a tough act to follow.

But from the moment the engagement was announced, it was obvious that the Prince had chosen a young woman who would not just glow with the pale reflected fire of the British royal family.

p. 30 No doubt Jaruzelski would like to believe that, but he must realize that what is happening in Poland today is a system that has failed its subjects - a system that is the instrument whereby a large, powerful state dominates a small, weak though courageous one.

Therefore proletarians must rise up against their exploiters and establish a new society in which there would be no significant private ownership. Everything would belong to the community as a whole; goods and services would be produced "from each according to his abilities" and "distributed" to each according to his needs".

He thought it could be imposed on all men, for their own good, and that they would come to like it and thrive under it. In his revulsion against the inequities of his own time and his quest for a just society, he mistook individualism, free enterprise and private property for root evils and thought he would be doing mankind a favor if he rationalized their destruction.

That instinct needs sometimes to be sublimated, often regulated, but never, as Marx would have had it, obliterated.

p. 34 The People's Republic of China took a flier in the "export of revolution" during the '60s and '70s when the Peking leadership was still enamored of Mao's idea that global disorder would hasten the Communist millennium.

It would be wishful thinking to predict that international Communism some day will either self-destruct or so exhaust itself in internecine conflict that other nations will no longer be threatened.

p. 38 Recalling that the Polish people were demonstrating their opposition to martial law by placing lighted candles in their windows, the President declared he would light a candle in a White House window "as a small but certain beacon of our solidarity with the Polish people".

In the end he settled on a set of largely symbolic sanctions: a cutoff of Poland's \$ 25 million in credit insurance at the U. S. Export - Import Bank (which would discourage private banks from lending greater sums), a suspension of the Polish national airline's right to land in the U.S., and a declaration that American territorial waters would be placed off limits to Polish fishing boats. The effect of these measures, the President hoped, would be to encourage the Polish government to bring a quick end to its state of emergency.

P. 42 The official assumption was that the outburst was a spasm of momentary rage and that the special relationship with America's prickly ally would return to something resembling normality in a matter of weeks. But the restoration would have to be on U.S., not Israeli, terms.

P. 46 Arab Americans rallied to Abu Eain's support partly because they feared that his extradition would set a precedent, making Palestinians in the U.S. (there are 125,000 of them) vulnerable to Israeli pressure.

P. 50 Although Communist governments have traditionally been some of the best credit risks in banking, a Polish default would change views about all future East European loans.

Rumours that the Soviets are seeking \$ 350 million in loan floated last week in European banking circles. The money would seemingly be used to help the Poles.

P. 14 Turkish industry was encouraged to invest in the production of items which otherwise would be imported.

SHOULD

P. 22 And should be fast to restore order, the Soviets are still posed to come in and finish the job for him.

P. 30 That lesson should have been learned vividly enough in Hungary in 1956, in Berlin with the building of the wall in 1961, and Czechoslovakia in 1968.

Private ownership creates inequalities, which carry with them injustices, which generate tensions, which lead to conflict. Therefore property should belong to the community as a whole.

He disagreed, however, with Reagan's view that Western governments should retaliate by suspending food shipments to Poland.

P. 46 Jurco nevertheless ruled that there was "probable cause" to believe that Abu Eain may be guilty; in effect, she held that the conflicting evidence should properly be aired in an Israeli court.

It was then up to the State Department to decide if he should be extradicted.

P. 50 If history holds true for this Administration, says LeFevre, stock prices should now begin rising in a fairly steady 32 month rally. They should then peak in August of 1984 when the dow will reach 1345.61, almost 300 points above its all-time high of 1051 set in January 1973.

P. 58 Some religious doves have suggested that Washington should take the first step on its own. Though the Vatican does not support unilateral disarmament, the U.S. branch of the Catholic peace organization Pax Christi believes the U.S. should act alone, in the hope that the Soviets might later go along; in the past year, membership of U.S. bishops in Pax Christi has risen from 17 to 54.

P. 6 This has been the direct result of stringent monetary and fiscal measures which should to continue to force inflation downward.

p. 14 An expected change in land ownership rights for foreigners should remove an important impediment to development.

TIME, CHICAGO, V. 119, N. 26, JUNE 1982, 60 P.

WILL

P. 7 If she maintains it and decides to patrol the Falklands forever, as much as two-thirds of the British navy will be bobbing in the South Atlantic, and Nato will be looking to the U.S. for yet more money and more ships.

Nor will an Israeli victory in Lebanon settle the issue of a place for the Palestinians to live.

If anyone comes away from the two recent conflicts infused with optimism, it will be the arms salesmen, who do not deal in words.

P. 10 But the slowdown, which has no time limit, will have little impact, since the aircraft are not to be delivered until 1985.

P. 14 Ultimately, the U. S. will have to induce the Israelis to offer the West Bank and Gaza Palestinians a far more independent life than Jerusalem is so far proposing.

P. 18 He will retain his positions as Minister of Defense and Aviation and commander of the army.

Saudi specialists say that Fahd's first task will be to shore up his credentials with the traditionalists at home.

Although Fahd may ultimately prove more forceful than Khalid in espousing policies favorable to the U. S., Saudi specialists caution that he will have to act slowly so as not to offend traditionalists at home and Arab opinion abroad at a time when U. S. military and political support to Israel is being blamed for the latest Arab humiliation in Lebanon.

P. 19 His will not be an easy reign: the potential for a collision between the forces of development and those of tradition is as acute as ever, as are the possibilities for further regional conflicts.

Fahd's biggest challenge will be maintain the course of political moderation set by his predecessors, a challenge in which the Saudi ruler's traditional virtues of consensus, caution and consistency should greatly assist him.

Like King Khalid, Crown Prince Abdullah is a man of the desert whose ties with the Bedouins will help make up for Fahd's own lack of a traditionalist following.

P. 22 In the immediate future, the greatest danger for Argentina is that it will continue its obsession with the Falklands, while neglecting its political and economic stability.

P. 23 The first will examine the handling of earlier negotiations with Argentina for the islands.

The other investigation will focus on the British Defense Ministry's censorship of information from the South Atlantic.

Though Thatcher refuses to budge on the issue of British sovereignty, Whitehall hopes that at some future date the Falklands will become de facto multinational protectorate.

P. 23 Although Thatcher's Western European allies supported her decision to regain the Falklands, they share the U. S. view that Britain must now show the flexibility to find a long-term solution that will avoid another war in the South Atlantic.

Britain's next moves will be watched throughout Latin American, where many countries have charged the U. S. with violating the 1947 Rio Treaty by supporting a European "aggressor" in the hemisphere.

They are worried that Buenos Aires will lash out in their direction as a kind of psychological compensation.

p. 40 Most of its graduates were born around 1960, at the tail end of the baby boom and the height of national prosperity, and will turn 40 around the year 2000.

p. 41 The economic prospects facing the class of '82 will profoundly affect home life. Mobility, in more ways than one, will be severely restricted.

Most educated women today are embarking careers out of a sense of mission and with the expectation that they will probably work for a major part of their lives.

For the class of '64, only one student in ten came from a one-parent family; today the ratio is one in five. These odds will not improve.

He predicts that the divorce rate will eventually rise to one out of every two marriages.

p. 50 The soul at odd moments (the third trout, the fourth beer) will make woozy rushes at the pipe dream.

WOULD

p. 6 If there is little dancing in the streets, you would think there might at least be deep contentment in the mind.

p. 7 Both could avoided armed conflict through negotiations (though this would have been harder for the Israelis), but either because of carelessness, stubbornness, arrogance or suspicion, each chose not to.

There are analogies between Argentina and the P.L.O. as well neither side was supported by its allies and neighbors to the degree it would have hopped to be.

p. 8 If the P.L.O. were neutralized and the Syrians persuaded to depart the country, there would be a chance that a strong, stable Lebanese government could be shaped from the various Christian and Muslim factions that shared power before the 1975-76 civil war.

However, an aide traveling with Begin in the U. S. last week told TIME that Israel would not commit itself to a formal cease-fire but would consider arrangements to allow the P.L.O. to depart from the capital peacefully.

Instead, the Administration was using an elaborate chain of intermediaries to contact the P.L.O.

Begin would talk to Haig, who would talk to Habib, who would talk to the Lebanese, who, finally, would talk to the P.L.O. The

responses of the P.L.O. would work their way back to Begin and Haig through the same elaborate route.

The Begin government would like to see a new and neutralized Lebanon emerge from the rubble: a country with no P.L.O., no Syrians, no internecine fighting and no quarrel with Israel.

Ideally, the Begin government would like U. S. troops to join the force. Its reasoning: the presence of Americans would inhibit any attempt by a revived P.L.O. to attack Israel's northern settlements.

Not only would that decision be explosive politically at home, but there is the serious danger that moderate.

Arab nations would be convinced that the Administration was simply conforming to the desires of Israel.

P. 9 An attack on the remaining P.L.O. strongholds would inevitably cause heavy casualties, infuriate the Arabs throughout the Middle East and compound the difficulties of reshaping Lebanon.

P. 10 But Secretary of Defense Caspar Weinberger and Vice President George Bush argued that a business-as-usual attitude towards Israeli aggression would cost the U. S. even more credibility among the moderate Arab states, which, despite Administration efforts, to dissuade them, were convinced that Israel had been given the implicit backing of Washington for the invasion.

In the days before his trip to Washington to meet with Reagan, Begin made it even clearer that he would not bow to U. S. demands.

Haig said the U. S. would oppose the creation of any Lebanese nation that would be a puppet of Israel.

The Secretary of State also said that the Administration, would not tolerate any deal that allowed the Christian Phalangist militia, acting as Jerusalem's proxies, to destroy the P.L.O. in Beirut.

That, Haig said, would make unification of Lebanon impossible.

As the talk went on, Haig got the feeling that Israel would accept any Lebanese government that Habib could patch together, as long as it was stable, friendly to Israel and determined to prevent the return of the P.L.O. as a military force.

The reason: fears that the P.L.O. would use a pause to regroup. Still, the Israelis were interested in any method that would get the P.L.O. out of Lebanon.

To resolve the chaotic affairs of Lebanon, Israel wanted a diplomatic solution, signed by itself, the Syrians and the Lebanese, that would eliminate the foreign troops from the

country, including the P.L.O..

Once the Lebanese ruled Lebanon and a suitable peace - keeping force had been installed in the south, the Israelis would pull out.

Most Arab countries would refuse to take in the organization because of its radicalizing political tendencies.

P. 11 Just how the P.L.O. would continue its struggle is a question mark.

Any Arab state that would accept the P.L.O. is highly unlikely to allow it to run its own private army, as was the case in Lebanon, or use its territory as a base for terrorist operations against Israel.

His formula for solving the problem is to form a demilitarized state or entity on the West Bank that would be federated with Jordan.

P. 13 Princeton's Falk and others doubt that the Reagan Administration, or any other, for that matter, would be willing to take the domestic political consequences of opposing Israel in a showdown.

P. 17 France sent the ship Argens with 35 tons of supplies. U. N. Secretary - General Pérez de Cuellar announced that the United Nations Relief and Works Agency would supply \$ 1.5 million for food, medicine, shelter and other necessities, and the U. N. World Food Program would deliver food worth \$ 11.5 million.

P. 18 Diplomats were often surprised, one visitor recalled, when he would engage them in talk "about the stars, hunting and spring rains, topics and made his eyes brighten".

P. 20 Buenos Aires warned that any cease-fire in the Falklands would be "precarious" so long as British forces remained on the islands.

Officials in Washington were deeply concerned that U. S. relations with all of Latin America would be severely harmed unless as Secretary of State Alexander Haig has put it, Thatcher was magnanimous in victory.

She insisted that Britain would "uphold its commitment to the security of the islands, if necessary, alone".

Thatcher announced that Rex Hunt, the islands' farmer governor, would return to Port Stanley as "civil commissioner" to administer the territory with the victorious British field commander, Major General John Jeremy Moore.

P. 21 According to Moore, Menéndez also gave his personal assurances that there would be no further attacks from Argentina on the British forces in the Falklands.

But British officials declared that about 1,000 selected prisoners, most of them officers and commanders would be held in response to Argentina's refusal to accept an unconditional end to the Falklands hostilities.

P. 22 More significant perhaps was the announcement that Major General Cristino Nicolaidis, a close Galtieri friend and protégé, would be the army's new commander in chief.

P. 23 In effect the Falklands would cease to be a British colony and become a protectorate of the British Crown.

Queen Elizabeth would be represented by a High Commissioner with responsibility for defense and foreign affairs, who would govern with a six-member executive committee drawn from an elected legislative assembly of 20 to 30 members.

P. 24 The U. S. Administration has opted for a balancing act that combines strong public declarations of support for Thatcher with delicate hints that the U. S. would prefer negotiations.

The best hope was that time would heal the wounds opened so brutally, that a rational appraisal of each country's best long-term interests would eventually prevail, and that the hard-won peace would not unravel.

P. 50 On the other hand, Kirkegaard would probably have made an extraordinarily depressing sportswriter (Fear and Trembling: The Angst of Bucky Dent).

Each one would be better than the last, or at least different, which was the point: a miracle of transformations, dreams popping into reality on fast-forward, life as a hectic multiple exposure.

SHOULD

P. 9 Although the U. S. had opposed the invasion. Haig saw its consequences as an opportunity that should be exploited: the P.L.O. was crippled as a military force; the formation of a strong Lebanese government could induce the Syrians to leave the country; and the establishment of a solid buffer zone in the south might ease the Israelis' fears about their security and thus make them more willing to come to terms with the Palestinians.

P. 10 At a meeting of the National Security Council on Monday that was chaired by Reagan, WSC. Adviser Willian Clark agreed with Weinberger and Bush that the U. S. should express some criticism of Israel.

The condition: Israel should not attack Beirut.

P. 11 The Israeli invasion has sparked a vigorous debate among foreign policy analysts in the U. S. and abroad over the prospects for Middle East peace and the role Washington should play in promoting a settlement.

P. 13 To get the Palestinian autonomy talks going again, Kissinger urged the U. S. to "nudge" the Israelis closer to the Egyptian view that the negotiations should produce a self-governing entity that could eventually lead to a Palestinian state.

P. 50 It is Nixon who should have been the police spy.

The imagination's pageant of an alternative self is a kind of vacation from one's fate. Kirkegaard did not really mean he should have been a police spy, or Nixon that he should have been a sportswriter.

But in the last moment of this life, self and antiself may coalesce. It should be their parting duet to mutter together: "On the whole, I'd rather be in Philadelphia".

TEXTOS DE INGLÊS EM GERAL

- 1 THE ECONOMIST, London, v. 283, n. 7235, May 1982, 119 p.; v. 283, n. 7236, May 1982, 105 p.; v. 283, n. 7240, June 1982, 116 p.
- 2 LONDON REVIEW OF BOOKS, London, v. 4, n. 7, Apr. - May 1982, 34.; v. 4, n. 10, June 1982, 24 p.
- 3 THE NEW YORK REVIEW OF BOOKS, New York, v. 28, n. 21/22, Jan. 1982, 66 p.; v. 29, n. 1, Feb. 1982, 36 p.; v. 29, n. 2, Feb. 1982, 40 p.; v. 29, n. 3, Mar. 1982, 45 p.
- 4 SATURDAY REVIEW, Des Moines, Iowa, Jan. 1982, 234 p.; Feb. 1982, 73 p.
- 5 TIME, Chicago, v. 119, n. 1, Jan. 1982, 80 p.; v. 119, n. 26, June 1982, 60 p.