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Pattern Indexing: an Attempt at Combining Standardized and Free Indexing

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In order to find a pragmatic solution for the problem of termino-logy control in alphabetical subject catalogs and also to avoid rather dogmatic discussions of pros and cons of standardization, this paper pursues the idea of having patterns generated from the topical and terminological requirements of certain scientific disciplines. These patterns provide a structured set of fixed in-dexing terms, which will have to be complemented with free terms to achieve flexible and adequate indexing. An exemplary pattern is generated (from literary scholarship and criticism) and applied to Shakespeare studies.   (Author)

1. Focus: The Alphabetical Subject Catalog

The alphabetical subject catalog of the traditional type, based on precoordinated subject-headings printed on cards, is still a common feature in academic libraries, despite severe attacks to which it has been subjected in recent years[1]. This is due not only to the numerous data bases[2], which are no longer limited to the sciences[3], but also to the fallacies inherent in the rules for and, consequently, the pratice of the traditional subject cata-log.

The treatment of topical subject headings is a deci-sive one. Among the five general types of subject head-ings (personal, geographical, temporal, formal, topical) all but the last do not present other than formal prob-lems of conception. The topical headings ("Sach- Schlag-wörter", to use the more expressive German term), how-ever, are often underestimated, if not neglected at all, in the relevant rules as far as problems of conception and terminology control are concerned. Neither the estab-lished US or German rules nor the recently completed new German ones are very much enlightening[4]. Al-though there is no disagreement that topical subject headings form nothing less than the essential part of the subject catalog[5], no attempt is made in any rules to provide precise information, more precise, anyway, than giving recommendations of the rather general and unob-liging kind, as to take the commonly used terminology of academic disciplines as the basis of indexing[6]. Neither librarians nor, for that matter, users will gain any profit from the advice to consult the relevant researchers them-selves, should the attempts to conceive subject headings lead to nowhere[7].

These critical remarks refer to the rather unspecific role of scientific terminology in the process of indexing' as well as to the indexer's somewhat individual turn to "his" specialists or "her" encyclopaedias. For the librar-ian, it must be difficult to apply straight principles to his indexing and to the user indexing of this kind is hardly transparent at all. It is inevitably prone to the same danger that is threatening classification which, in S.R. Ranganathan's opinion, ". . . should not be dependent on the discretion of an individual classifier in an indi-vidual library"[8].

The obvious alternative, having subject headings pre-scribed, possibly to the extent of standard lists, has never been very popular in German speaking countries. Nevertheless, standardization has sometimes been con-sidered appropriate in shared cataloging projects[9]. Efforts towards that aim did not lead anywhere, how-ever, for the reason that the *Library of Congress List of Subject Headings* had almost every time been referred to as the exemplary list[10]. Beside severe translation problems there are indisputable frailties in the LC list, which have been outlined unmistakably by US library science, concerning both formal inconsistencies as well as conceptional insufficiencies[11]. Moreover, LC indexing often got on the losing side in competition with free indexing systems, PRECIS for instance[12]. All this did not contribute to popularize standard indexing. After all, the LC recently closed their own alphabetical subject catalog[13].

Is it not, therefore, a considerable advantage of tra-ditional German rules to do without standard subject headings straight away? Such a provision, however, is rather a blessing in disguise, for the theoretic possibility of achieving more precise an indexing than the LC does not avoid the fallacies already mentioned.

2. Objective: Terminology Control via Pattern Indexing

The best way to reconcile the extreme positions, per-sistence in free indexing vs. demand of comprehensive standardization, may lead via the reduction of both subject matter and extent of standardization itself. Rather than trying to introduce an overall standardiza-tion it seems more feasible to isolate significant branches of certain disciplines. This will help a more detailed discussion of pros and cons of standardization. Besides, looking closely at the indexing requirements of indi-vidual disciplines may in turn be a rewarding experience, since it may strengthen the hitherto superficial links between indexing practice and research[14].

Limiting our approach to the humanities, an example is easily found in literary studies. In contrast to the sciences, they are characterized by a very high degree of personally oriented studies, i.e. studies devoted to life and works of an individual author. It might, there-fore, be useful to examine an outstanding example, also with respect to possible standardizations. The very example, obviously, is Shakespeare, because even in years not marked by any Shakespearean anniversary he is the author who is the subject of most literary scholarship and criticism, not only as far as English studies are concerned. Apart from the quantitative point the example of Shakespeare studies must be attributed a prominent, almost paradigmatic position in our ap-proach because of the numerous works, diverse genres, complex subject matter and the multitude of critical opinion offered during the history of Shakespeare

research[15]. This attitude is in accordance with, for example, the Library of Congress: when it comes to the conception of subject headings covering literary authors, Shakespeare has for decades been the guideline[16].

A recently published, comparative study of indexing Shakespeare studies in Anglo-American general and subject bibliographies investigated major areas of indexing, such as biographical studies, criticism of single works or genres, Shakespeare's sources and his reception, the critical discourse on central generic aspects of Shakespeare's works (language and dramatic art). The study lead to the question whether there would be any help in having standardized items to rely on while indexing Shakespeare studies[17].

With regard to the prevailing criticism of the LC list there can be no point in copying or applying LC strategies in general, particularly not if the indexing is done in a language other than English. What is at stake, then, is a kind of pattern, basically formed by a certain number of standardized subject headings, *points fixes* as it were, which would have to be complemented by free indexing terms.

It must be pointed out immediately that the approach explained below can hardly be more than a proposal, an outline of an indexing method. It has not yet been tested in practice, and it would be imposturous to pretend more, either for the Shakespearean example or for its suggested paradigmatic aspect.

The approach is stimulated by what has become to be labeled "convergence theory"[18], meaning the convergence and mutual prevasion of content-oriented classificatory and formal alphabetical catalog structures. Although several examples of convergence have already been described, for instance the classification of particular sections in an alphabetical subject catalog, the possibilities of further, i.e. more comprehensive classification of alphabetical subject catalogs do not appear to be completely exhausted.

3. Method: Generation of Pattern

Two critical points are concerned: the conception of indexing terms themselves as well as the systematic connection of subject headings. The basic methodological issue of our approach is derived precisely from a combination of these points. Any attempt at standardization of subject headings must be aware of the question, which systematic categories are to be distinguished in any given field of research, for instance in literary studies. Or, to ask the same question from the point of the reader, can his/her questions or research strategies be subsumed under categories of that kind?

Even without a detailed reflexion on the theory of literature we may safely argue that there are indeed such categories. A classic title, René Wellek's and Austin Warren's *Theory of literature,* although published back in 1949, definitely points at "language", "genre", and "content"[19]. These signal fundamental subject (and, therefore, indexing) matters of literature, the material and aesthetic constitution of literary works, their relation to works comparable with respect to content or form and their thematic aspects. The content/form dichotomy, outdated in literary theory[20], still serves a heuristic purpose, because form and content aspects can

be differentiated with reference to retrieval (and, therefor, indexing) strategies.

On this elementary level it is necessary, though, to distinguish between two semantic aspects of "genre"[21]. Leaving the term "genre" itself for the fundamental generic typology (dramatic, epic/narrative, lyric art)[22], the term "form" shall be applied to groups of certain works of an author, for which generic concepts and terms have become accepted. "Form" terms may not only differ from the trias of "genre" terms, they usually have to be more precise[23].

The four concepts mentioned are of paramount importance, although they cannot comprehend all aspects: form(s), genre, language, themes. They refer directly towards the literary works themselves, being "intrinsic" in the received terminology[24], and must be complemented by "extrinsic" categories: the author him/herself *(biography)*; the author and his/her works in the process of literary history, relating both to literary and other *sources* as well as to aspects of influence or appreciation *(reception)*; the scholarly and critical debate incited by these works, concerning the constitution of the text as the very basis of literary research *(textual criticism)*, the probably divergent *methodological approaches* applied and finally the historical dimension of the critical discourse itself *(methodological history)*.

We have thus sketched the basic categories of indexing literary studies. They form a preliminary stage of primary subheads[25] of literary author headings:

N.N./ Bibliography
     Language
     Literary Forms
     Literary Genres
     Methodological Approaches
     Methodological History
     Reception
     Sources
     Textual Criticism
     Themes[26]

This pattern is still provisional because the subheads covering literary forms relevant for the author in question as well as the corresponding subheads covering literary genres have yet to be incorporated. The categories of Literary Form/Literary Genre primarily serve a reference function to the author's virtual literary forms (i.e. groups of works) and the corresponding literary genres. The form terms can hardly be standardized since they naturally vary among the oeuvres of different authors, and the terms themselves are, of course, subject to change according to research results and critical opinion. Consequently, they will be free indexing terms, being arranged on the same primary level as the subheads formed by the titles of the author's single works. There must also be references from "Literary Genre" to the virtual categories of the genre-typological kind relevant to the author (dramatic, epic/narrative, lyric art), which also become primary subheads.

The treatment of the form/genre headings and the pattern itself indicate the basic concern of our approach, not only to standardize subject headings of which it is indeed trite to say they are relative, but above all to provide an indexing method which is structurally transparent to the user.

4. The Shakespearean Example

To apply all this to Shakespeare, it is necessary to include into the basic pattern (see below, left column) the form/genre terms and references relevant to Shakespeare (middle column)[27]. The transformation of the standard basic pattern into the standard Shakespeare pattern (right column) reveals that the structures determining subject matter and indexing of literary studies remain identical (title-entries, also on the primary subhead level, are omitted because of limited space):

N.N./Biography		Shakespeare/Biography
Language		Comedies
Literary Forms		Dramatic Art
see also	Comedies	Epic Art
	Histories	Histories
	Poems	Language
	Problem Plays[28]	Literary Forms
	Roman Plays	Literary Genres
	Romances[29]	Lyric Art
	Sonnets[30]	Method. Approaches
	Tragedies	Method. History
		Poems
Literary Genres		Problem Plays
see	Dramatic Art	Reception
	Epic Art	Roman Plays
	Lyric Art	Romances
Methodological Approaches		Sonnets
Methodological History		Sources
Reception		Text. Criticism
Sources		Themes
Textual Criticism		Tragedies
Themes		

The subsequent step will make obvious that the elements of the standard Shakespeare pattern are subhead-complexes rather than isolated subheads. For it will be necessary to enlarge them on a further, secondary level, using variable combinations of free and standardized terms to achive adequate and transparent indexing of Shakespeare studies[31].

Postponing the discussion of subdividing the complex of Literary Forms and the author-title-entries (such as Shakespeare/Macbeth/. . .), the focus will be, first of all, on the following categories (again, I would like to stress that all this is meant to propose an indexing method, not to document an indexing practice):

1. *Biography:* Only free indexing terms should be taken as secondary subheads, in order to avoid schematic listings of little expression or even confusing arrangement[32] — a mere period subdivision possibly being the best solution.

2. *Language:* The terms assembled below were selected with particular reference to Shakespeare the dramatist. It goes without saying that they have to be modified and complemented by representative headings of epic/narrative and lyric art. The following terms, then, may tentatively be taken as standard secondary subheads to language (read: Shakespeare/Language/N.N.):[33]

Dialect, Grammar, Idiomatic Expressions, Imagery, Irony, Pronunciation, Prose, Punctuation, Puns, Rhetoric, Rhythm, Semantics, Special Subjects (see 10.), Speech Acts, Style, Syntax, Translation, Verse, Vocabulary.

3. *Literary Genres:* As before, the focus is on Shakespeare's dramatic art, because it seems the only genre to allow for sufficient explanation of our approach. Tenta-

tively again, the following terms may be taken as standard secondary subheads (read again: Shakespeare/Dramatic Art/N.N.):[34]

Act, Aside, Audience, Character, Conflict, Dialog, Disguise, Dramatic Imagery, Ending, Illusion, Monolog, Music, Play-Within-A-Play, Plot, Prolog/Epilog, Role-Play, Scene, Setting, Soliloquy, Special Subjects (see 10.), Time.

4. *Methodological Approaches:* In contrast to most prevailing indexing practice further differentiation of methodological approaches must be provided[35]. The following list might suffice for a provisional survey of approaches in Shakespeare criticism (as before, read: Shakespeare/Methodological Approaches/N.N.):

Biography, Deconstruction, Feminism, Formalism, Hermeneutics, Historicism, Marxism, Psychology, Reader-Response, Semiotics, Structuralism.

Differentiations of this kind are quite difficult sometimes because of inherent value problems. Nevertheless, the almost indeterminable number of Shakespeare studies must be classified according to methodological approaches, unless the reader shall be left with most general and pointless terms such as "Criticism and Interpretation" and the like[36].

5. *Methodological History:* Only free indexing terms should be taken, possibly accompanied by period subdivisions.

6. *Reception:* It may be helpful to divide this complex by classifying its contents roughly into geographical and subject aspects of literary reception:

(1) Alphabet of countries (for general studies)
(2) Alphabet of aspects (arts, music, theatre, etc. — free terms only)[37].

7. *Sources:* As with Biography, only free indexing terms should be taken.

8. *Textual Criticism:* See above.

9. *Themes:* In order to preserve the "infinite variety" of thematic Shakespeare criticism only free indexing terms should be taken. This seems feasible because thematic subheads will no longer be dispersed all over the alphabet of Shakespeare subheads, but concentrated at a single spot[38].

10. *Special Subjects:* This category, which has already been mentioned several times, is to be understood as an attempt to deal with those objections denying the use and the feasibility of any kind of standardization. There will indeed be various cases proving the elements of a standard list to be not sufficient to index certain titles as adequately as it could be done with free indexing. Mediation between standardized and free indexing can, however, be attempted in such a way, as to leave considerable areas for free indexing while basically relying on a pattern of certain standardized items (see: *Biography, Methodological History, Sources, Textual Criticism, Themes*). Moreover, free indexing terms can also be provided on the secondary subhead level, complementing a set of standardized terms. If, for instance, there is a complex such as "Dramatic Art", why not introduce a term like "Special Subjects" for free indexing of special, in a sense additional, aspects of publica-

tions? After all, such a subhead may also be provided on the primary subhead level[39].

It is, of course, a pity to have a category like this in the middle, as it were, of the other subheads. It would be more appropriate to have it at the end to underline the additional character of items assembled here. But the English language apparently does not yield to any term or phrase meeting that requirement[40].

Categories of this kind can easily acquire the dreaded status of asylums known from classification practice. But whether this really happens will depend on the quality of the standardized categories, providing comprehension and distinctiveness at the same time.

The conclude our pattern, the final step is made by describing how to handle author-title-entries (say, Shakespeare/Macbeth/N.N.) and author-form-entries (Shakespeare/Tragedies/N.N.). The basic structures of our standard pattern as well as the generic references and the subhead complexes remain valid on the secondary level, too, and can be transformed into analogous author-title and author-form patterns, differing from each other only as far as the fundamental literary genre (dramatic, epic/narrative, lyric art) is concerned. If further subdivision is required (as will be, oif one thinks of the number of titles devoted to single plays), the subdivisions suggested above (standard as well as free terms) can be applied:

Shakespeare/Tragedies

Shakespeare/Macbeth/Dramatic Art/or	/see 3.
Language	/see 2.
Methodological Approaches	/see 4.
Methodological History	/see 5.
Reception	/see 6.
Sources	/see 7.
Special Subjects	/see 10.
Textual Criticism	/see 8.
Themes	/see 9.

As for epic/narrative or lyric forms or works, their subdivision patterns differ only with respect to the replacement of "Dramatic Art" in the above pattern and, consequently, changes in the alphabetical order of subheads.

This pattern was developed in the process of analysing indexing methods applied to Shakespeare studies. It will, however, be possible to index other than Shakespearean studies by making use of this pattern. For it does no more than provide a standard outline of indexing literary authors. The free indexing sections, notably the repeated "Special Subjects", support indexing of other authors without giving away the requirements of research adequacy. It would, of course, be desirable to see the "dramatic" example complemented by examples considering those genre complexes omitted in this paper and, as a result, to have the inevitable and compulsory modifications applied to the subject heading "Language". Here, it could only be sketched and, what is more, with exclusive reference to Shakespeare the dramatist.

There can be no doubt about the simplifications and shortcomings inherent in, what might by now be called, pattern indexing. With regard to the generally reduced function of subject catalogs in research libraries, where they mainly serve as an "entrance", an initial step, to a retrieval, we may suggest that indexing standardizations

of the kind described with reference to Shakespeare precisely support this reduced function of the subject catalog[41]. If this reduction is accepted and underlined by an indexing practice securing homogeneity and transparence without having to renounce at flexibility, the subject catalog, despite the traditional concept and the critical voices, will continue to play its role in academic libraries.

References and Notes:

1 See, for instance, *Requiem for the card catalog: management issues in automated cataloging.* Ed. P. Gore et al. (London 1979); W. Gödert, "Gegenwart und Zukunft bibliothekarischer Sacherschließung," *Libri,* 31 (1981), 30–56.
2 See *Datenbankführer I: ODIN-Datenbankführer.* 4th ed. (Frankfurt 1983); *European data base guide* (Paris 1983).
3 An outstanding example of online retrieval facilities in the humanities will be a Shakespeare data base, comprising some 50.000 titles (1959–1980), see H.T. Meserole/J.B. Smith, "'Yet there is method in it': The cumulative Shakespeare bibliography. A product of project planning in the humanities", *Perspectives in computing,* 1 (1981) No. 2, p. 4–11.
4 Cf. J.E. Daily, "Subject headings", *Encyclopeadia of library and information science.* Ed. A. Kent et al. (New York 1980), vol. 29, pp. 178–191. See also the exemplary study of German rules by W. Gödert, "Verbale Sacherschließung im Fach Mathematik", *Bibliothek: Forschung und Praxis,* 3 (1979) p. 170–190. For the new German rules, intended to become obligatory in the near future, see *Regeln für den Schlagwortkatalog: RSWK.* Bearbeitet von der Kommission des Deutschen Bibliotheksinstituts für Sacherschließung. 3. Entwurf (Berlin 1983).
5 See J. Drtina, *Der Schlagwortkatalog* (Leipzig 1961) p. 54.
6 See, for instance, the starting point of it all: Ch.A. Cutter, *Rules for a dictionary catalog.* 4th ed. (Washington 1904), p. 70.
7 Drtina, loc. cit., p. 45.
8 Quoted in: Bhattacharyya, G.: "A general theory of subject headings", *Library science with a slant to documentation,* 11 (1974) p. 24.
9 Cf.F. Bartelt, *Standardlisten zur Schlagwortgebung: Hilfsmittel der verbalen Sacherschließung in Bibliotheken* (Köln 1978) p. 89.
10 Library of Congress subject headings. 9th ed. 2 vols. (Washington 1980).
11 See Daily, loc. cit.; S. Berman, *Prejudices and antipathies: a tract on LC subject heads concerning people* (Metuchen 1971); L.M. Chan, *Library of Congress subject headings: principles and application* (Littleton 1978).
12 Cf. Ph. A. Richmond, "PRECIS compared with other indexing systems", *The PRECIS index system: principles, applications, and prospects.* Ed. H.H. Wellisch (New York 1977), pp. 101–104. See also reference 17.
13 Cf.R.R.Daly, *After day one: implementing the changes in Library of Congress cataloging.* Chicago 1982.
14 See W. Garvey, *Communication: the essence of science. Facilitating information exchange among librarians, scientists, engineers and students* (Oxford 1979).
15 For ready reference see *A new companion to Shakespeare studies.* Eds. K. Muir/S. Schoenbaum (Cambridge 1971); *A Shakespeare encyclopaedia.* Ed. O.J. Campbell/E.G. Quinn (London 1966); *Shakespeare-Handbuch: die Zeit, der Mensch, das Werk, die Nachwelt.* Ed. I. Schabert. 2nd ed. (Stuttgart 1978).
16 *Library of Congress subject headings,* loc. cit., p. 2107.
17 H. Schnelling, *Shakespeare im Schlagwortkatalog: vergleichende Untersuchungen anglo-amerikanischer und deutscher Praxis verbaler Sacherschließung* (Berlin 1983).
18 See, also for further references, C.-G. Nowak, "Konvergenztheorien in der Sacherschließung," *Bibliothek: Forschung und Praxis,* 3 (1979) p. 159–169.
19 R. Wellek/A. Warren, *Theory of literature* (Harmondsworth 1973 [1949]), p. 22ff., p. 140ff., p. 226ff.
20 It must suffice to refer briefly to three outstanding titles documenting paradigmatic changes in literary theory and criti-

cism: H.R. Jauß: *Literaturgeschichte als Provokation* (Frankfurt 1970); J. Culler, *Structuralist poetics: structuralism, linguistics, and the study of literature* (Ithaca 1975); J. Culler, *On deconstruction: theory and criticism after structuralism* (Ithaca 1982).

21 See A. Fowler, *Kinds of literature: an introduction to the theory of genres and modes* (Oxford 1982); K.W. Hempfer, *Gattungstheorie* (München 1973).

22 The term "narrative" is added because "epic", although still very common in fundamental genre theory, would seem somewhat odd in our context, since "narrative" is the appropriate term to describe contemporary forms of fiction. For the purpose of this paper, however, further differentiation (for example in a historical sense) seems superfluous because the focus will be on dramatic art. For a pragmatic treatment of typological questions see G.P. Knapp, "Textarten – Typen – Gattungen – Formen", *Grundzüge der Sprach- und Literaturwissenschaft*. Eds. H.L. Arnold/V. Sinemus (München 1973), vol. 1, p. 259f.

23 See Hempfer, loc. cit., pp. 18–25. Cf. the German terminology distinguishing between *Gattungen* (genres) and *Werkgruppen* (forms).

24 See Wellek/Warren, loc. cit., p. 73f., p. 139ff.

25 Hierarchical levels of subject heading subdivisions are commonly counted in German rules: 1. *Unterschlagwort*, 2. *Unterschlagwort*, etc.; although it is not common in English terminology to do so, I have followed the counting practice (primary subhead, secondary subhead, etc.) for the sake of unambiguity, since the approach pursued here draws on a hierarchical concept of indexing.

26 Cf. a possible German version of the standard pattern: Biographie, Forschungsgeschichte, Forschungsmethoden, Gattungstypologie, Quellen, Rezeption, Sprache, Textkritik, Themen, Werkgruppen. See also reference 23.

27 For "Form"-headings see *Shakespeare-Handbuch*, loc. cit., p. xif.

28 The term "Problem Plays" (e.g. *Measure for Measure*) is derived from W.W. Lawrence, *Shakespeare's problem comedies*. Rev. ed. (Harmondsworth 1969).

29 "Romances" in the sense of F.A. Yates, *Shakespeare's last plays* (London 1975).

30 "Sonnets" is treated as a literary form in contrast to Shakespeare's other poems.

31 Other categories than topical subject headings (personal, geographical, temporal, formal) are omitted in this outline because their treatment has been amply described in almost every of the established rules.

32 See, for example, the strict alphabetical treatment in the LC list ("Last years" before "Youth"). *Library of Congress subject headings*, loc. cit., p. 2107.

33 Cf. the survey of "see also"-references from "Gammar and Language" in *A Shakespeare bibliography: the catalogue of the Birmingham Shakespeare Library.* Ed. W. Frederick (London 1971) vol. 5, p. 779.

34 Cf. the survey of "see also"-references from "Dramatic Art of Shakespeare" in the catalog of the Birmingham Shakespeare Library (previous reference), vol. 4, p. 622.

35 The model of this approach is the "viewpoint-as-form" operator of PRECIS, see D. Austin, *PRECIS: a manual of concept analysis and subject indexing* (London 1973), pp. 212–234.

36 See the negative examples in the printed catalogs of the *Folger Shakespeare Library* (Boston 1972) and the *British Museum*, offering 80 and 51 columns of "Criticism" filed only according to author alphabet.

37 This very pragmatic strategy is stimulated by the often similar titles of reception studies, say *Shakespeare in Germany*, *Shakespeare on the American stage*, etc. Personal aspects of reception (e.g. *Dr. Johnson on Shakespeare*) may be neglected here, because personal subject headings (in this case primary subheads to Shakespeare) do not present problems.

38 For a critical survey of recent thematic studies on Shakespeare's plays see R. Levin, *New readings vs. old plays: recent trends in the reinterpretation of English renaissance drama* (Chicago 1979).

39 Cf. the model, the PRECIS element "Special Subjects/Special Themes" in the BNB.

40 The German language does, though, if you think of a term like *Zusätzliche Aspekte* at the very end of almost any given set of standardised items.

41 See the results of a recent user study, *Benutzerverhalten an deutschen Hochschulbibliotheken.* Ed. K.W. Neubauer (München 1979): they prove high usage of alphabetic subject catalogs (p. 243, p. 278f.), particularly among students reading humanities (p. 247). They clearly indicate that beginners tend to use these catalogs to a much higher degree than advanced students (p. 277).

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