

# A social semiotic approach to textbook analysis: The construction of the discourses of Pharmacology

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*This article takes a multimodal social semiotic approach to analysing educational textbooks. We are interested in the ways in which educational textbooks contribute to designing our social futures by constructing both the student and the discipline in a particular manner. While a textbook's primary purpose is to provide the reader with knowledge content about a specific topic, it also serves to conventionalise and entrench certain discipline-specific practices and values. A textbook simultaneously competes in an economic environment where the reader has a choice of many textbooks. The text, therefore, takes on a hybrid form, where marketisation and conversationalisation co-exist in dialogue with academic discourse. The article analyses the discourses of Pharmacology as constructed in two widely used Pharmacology textbooks in South Africa. We take a systemic functional approach which views texts as realising meaning in three ways, namely the ideational, the interpersonal and the textual. The analysis shows how one of the textbooks tends to establish a more democratic relationship between authors and readers, while constructing Pharmacology within a scientific discourse of drugs. The other textbook constructs a more traditional and hierarchical relationship between author and reader, yet tends to reinforce a clinical, patient-centred approach to Pharmacology. We argue that this kind of analysis is important when interrogating curriculum, as textbooks are crucial sites of struggle over discourse, meaning and power.*

**Keywords:** textbooks, social semiotics, discourses of Pharmacology

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## **Introduction**

The process of becoming a medical doctor requires more than studying science, or acquiring clinical reasoning and practical competencies. Medical students also have to learn to talk, act and think 'like a doctor'. In other words, they need to acquire the social practices and discourses of a prescribing practitioner. These social practices include open communication, responsiveness and respect, and recognising the patient's right to participate in decisions. If the curriculum is to construct the student's journey towards becoming this kind of practitioner, it is expressed not only through the choice of content and pedagogy, but also through the choice of resources such as textbooks that guide learning.

A textbook can be viewed as "a dialectic of both linguistic form and social communicative practice" (Hicks, 2003: 3). Kress and Van Leeuwen (2006) suggest that students who are exposed to new science textbooks hold a different view of science and scientists than those schooled in more traditional texts, in that they have different notions of authority relations and of the status of science as 'truth'. It is important to note that textbooks are "conceived, designed and authored by real people with real interests. They are published within the political and economic constraints of markets, resources, and power" (Apple & Christian-Smith, 1991: 2). This article investigates how two textbooks, used by medical students at a particular tertiary institution in South Africa, construct particular discourses of Pharmacology. It analyses how these books draw on available meaning-making resources to construct particular relationships between the represented participants and between the participants and the subject 'science'. By turning a critical lens on the construction of discourses and social relationships in medical textbooks, we foreground ideological orientations and assumptions underpinning these texts and relate them to the social context in which the texts are used.

## **Textbooks and orders of discourse**

Fairclough (1992) uses the Foucaultian term 'orders of discourse' to refer to a socially produced array of discourses which interact dynamically with each other, sometimes in a complementary way, and sometimes in opposition to each other. Boundaries between discourses and relationships are always shifting, reshaping and reconstructing the orders of discourse. Contemporary features such as marketisation, the "colonization of orders of discourse by advertising and other discourse types" (Fairclough, 1992: 99) and conversationalisation, "a strategically motivated simulation and appropriation of life-world practices" (Fairclough, 2000: 175) have brought about discursive shifts in social practices and authority relations. In the field of clinical medicine, viewing patients as 'consumers' could lead to more informal doctor-patient relationships as well as to different treatment practices. As 'consumers', patients are given a greater degree of choice; they are better informed, and they exert their right to a second opinion.

These discursive shifts are also noted in modern textbooks. Apart from constructing the knowledge and values specific to the discipline within particular contexts of power, the textbook has to compete in the economic environment. Production of a medical textbook involves negotiating the domains of media, business, marketing, research, academia and education, resulting in multiple contrasting and complementing discourses, where some emerge as more dominant. Textbooks thus signify “particular ways of selecting and organizing that vast universe of possible knowledge” (Apple & Christian-Smith, 1991: 3). Power is realised not only in what is included and what is left out, but also in the relationship between the text producers (authors) and the text consumers (readers). The text could, for example, take on a hybrid form of “telling-and-selling” (Fairclough, 1992: 116), where marketisation and conversationalisation co-exist in dialogue with some of the conventions of academic discourse. This could manifest in, for example, content being presented dialogically rather than as directives, and readers being positioned as colleagues rather than learners. We thus view a textbook as “being full of snatches of other texts” (Fairclough, 1992: 84), and as signifying particular constructions of reality.

Our methodological approach combines social semiotics and critical discourse analysis. Social semiotics is based on Halliday’s view (1985) that texts realise meaning on three levels, namely the ideational, the interpersonal and the textual. In the ideational, semiotic modes such as writing, colour and image act as resources for constructing representations of the world. The interpersonal is concerned with social interaction between the text producer and the audience, as well as the text producer’s attitude towards the topic. The textual is that which makes the text coherent and recognisable as a particular type, for example, a discussion rather than a lecture. A social semiotic approach focuses on meaning-making in context and the socially situated use of modal resources (Jewitt, 2009). To complement this approach, critical discourse analysis is employed to give insight into the social worlds in which the text belongs and to highlight the fact that the intertextual nature of texts is conditional upon relations of power (Fairclough, 1992). We view intellectual work (including science) as a set of social practices that produce their own discourses and readings of the world through interaction. Some readings are more powerful than others and all texts are sites of struggle over discourse, meaning and power.

## **Textbooks as circulating clinical and scientific discourses in the medical curriculum**

We examine two textbooks, *Pharmacology* (Rang, Dale, Ritter & Moore 2003) and the *Oxford textbook of clinical pharmacology and drug therapy* (Grahame-Smith & Aronson, 2002). This study was inspired by the fact that many undergraduate medical students at our institution acquired Rang’s *Pharmacology*, even though the Oxford textbook was the Faculty’s officially sanctioned and prescribed choice. This raises interesting debates as to why students choose a particular textbook, and what the

stakes are in the choice of textbook. To appreciate the nature of this dilemma, a short discussion of the institution's broader curriculum context is necessary.

In response to both global ideological shifts in medical education and an increasing demand for generalist doctors nationally, the university's undergraduate medical curriculum was revised over a decade ago. The aim of the new medical curriculum is to graduate patient-centred 'generalist' clinicians suitable for working in the country's urban and rural public health sector. A curriculum model was chosen that integrated biomedical, behavioural and social sciences in relation to generalist clinical practice. Bernstein (2003: 93) describes this model of curricular integration as "the subordination of previously insulated subjects or courses to some relational idea, which blurs the boundaries between subjects". In practice, the change meant that much of the scientific content and depth of traditional preclinical subjects such as microbiology and physiology, as well as specialist disciplines such as surgical specialities, were excluded from the new core curriculum, while themes such as health promotion were expanded. The argument for an integrated curriculum has pedagogical roots; according to its designers, "many students find it difficult to apply the principles that they have learned in the first three years of pure scientific theory to their last three years of clinical practice ... A key structural change has been the removal of the preclinical and clinical divide" (University of Cape Town, 2002: 3). Students now spend the first three years in a problem-based learning environment, where basic sciences such as chemistry and physiology are subsections relevant to clinical problems, such as a patient presenting with tuberculosis or diarrhoea.

An important ideological concept underpinning this curriculum is the adoption of the Primary Health Care philosophy. The traditional western model of health is a 'medical' model, where the body tends to be regarded as a 'machine' and the doctor as a scientist or 'mechanic' (Macdonald, 1992). While this analogy has been useful in understanding certain aspects of Medicine, its greatest drawback has been establishing a culture of "the removal of the patient or the community from any situation of control in the encounter with the medical profession" (Macdonald, 1992: 30) and the perpetuation of the myth that "there is a medical answer to the problems of the world's health" (Macdonald, 1992: 32). The Primary Health Care model, laid out in principle at Alma Ata in 1978 and adopted in South Africa as formal health policy in 1994, follows a bio-psychosocial approach that includes emphasis on patient partnership and equity, community involvement, socio-economic causality and acceptance of certain cultural practices in health care.

While the principles of integration and the Primary Health Care approach underpin the new medical curriculum in policy, implementation has been problematic and highly contested in certain spheres. At the centre of the controversy are not only the pedagogical debates on the gains and losses associated with different curriculum types, but also a deeper hegemonic struggle. Bernstein (2003) suggests that, since integration reduces the authority of separate contents, this weakens the status of the individual subject and affects the traditional authority and relationships of the highly

specialised knowledge transmitter. While the previous curriculum was associated with stronger framing (that is, stronger boundaries in pedagogical relationships, between students and teachers, and between teachers of different specialities), an integrated curriculum relies on staff cooperation across disciplines and places more emphasis on the self-regulatory nature of learning. In practice, this means that in contested spaces students may receive mixed signals on what counts as valid knowledge and valid transmission. Whilst acknowledging the uneasy relationship between textbook and curriculum (cf. Paxton, 2007), the degree to which a prescribed science textbook is aligned to the principles of clinical problem-solving and bio-psychosocial patient care is important in the implementation of the new curriculum.

We now examine the extent to which the two Pharmacology textbooks in question are aligned to these particular ideological assumptions using a social semiotic approach. We focus on the cover page, the authors' preface and the table of contents. As far as textual coherence is concerned, we examine how components "cohere both internally with each other and externally with the context in and for which they were produced" (Kress & Van Leeuwen, 2006: 43).

## Textbook 1: Pharmacology as 'the knowledge of drugs'

Students tend to gravitate towards Rang *et al.*'s textbook entitled *Pharmacology*. The front cover is lively and contemporary (see Figure 1). Someone with a medical background will recognise the cover image of bright yellow, red and green blotches on a blue background as a Magnetic Resonance Imaging (MRI) scan. MRI is a modern and expensive diagnostic aid that constructs a technological, scientific view of medicine. The title is simply *Pharmacology*, meaning 'the study of drugs', suggesting a particular product-oriented ideological view of the subject. The publisher's logo is a small white ship with billowing sails, and together with the blurred image, it creates an impression of movement and energy. A stamp-like image identifies this book as an 'international edition'. The lively, contemporary feel established by the cover is continued throughout the book where colour, information graphics and diagrams are extensively used.

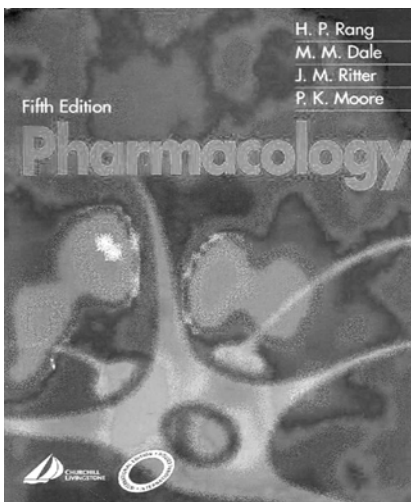


Figure 1: The cover of *Pharmacology* (Rang *et al.*, 2003)

The first sentence in the preface introduces the subject of Pharmacology as not merely describing “what drugs do” (Rang et al., 2003: v), but also emphasising “the mechanisms by which they act” (Rang et al., 2003: v). The authors describe their approach as “a good starting point for understanding and using a new compound intelligently” (Rang et al., 2003: v). In other words, this is a book about drugs, cells and systems. By avoiding reference to people as patients, the authors construct particular social roles, or “who does what to whom” (Goodman, 1996: 26). In this instance, the phrase “drugs that affect the cardiovascular, nervous, respiratory and endocrine systems” (Rang et al., 2003: v) identifies the participants as drugs and systems, rather than doctors and patients.

According to Fairclough (1995, 27), a clause which represents an event will also assess “the truth or probability of the proposition so encoded, and the relationship between producer and addressee”. Rang’s relationship with the subject matter is distant; dehumanising the clause disconnects the authors from the messy emotional connotations associated with disease and death. By rearranging the world into biological systems, they are able to avoid the dilemmas of responsibility and accountability, referring to drugs acting on cells, rather than people working with patients. Rang draws on the tradition of avoiding categorical modality in academic discourse, not because of a low affinity with the subject matter, but because it is “motivated by the projection of an approved cautious and circumspect subjectivity and ethos for ‘the scholar’” (Fairclough, 1992: 162).

In direct contrast to the linguistic distancing from the content, the authorial voice constructs a relaxed and conversational relationship between text and reader, using humour to convey a friendly persona. The phrase “as will already be apparent to the astute observer, we have gone into riotous colour” (Rang et al., 2003: v) ties the image of science to the notion of fun and playfulness. Neither does it require an ‘astute observer’ to notice the ‘riotous colour’ used in the design. Rather, the authors use the irony and wordplay with opposites to poke fun at themselves, thereby bringing a hint of light-hearted humour into an academic discussion. The effect is repeated in a comment on obesity in the preface, where “the ‘new drug’ pipeline is expected to disgorge many more such agents – as horizontally-challenged individuals will be pleased to learn” (Rang et al., 2003: vi). Whereas the use of the term ‘disgorge’ may be slightly risqué when speaking about obesity, wordplay as a kind of dry intellectual humour seems quite appropriate in distinguished, academic circles. The phrase “horizontally-challenged individuals” is a humorous nod at the politically correct language of a modern society, but the discourse may not be well suited to students from a wider range of backgrounds. Rang does not explicitly indicate who its readers are. Halfway through the preface, the authors mention “students” of “the medical curriculum” (Rang et al., 2003: v) and near the end they refer to “non-medical students studying pharmacology” (Rang et al., 2003: vi). There is no specific reference to either undergraduate or postgraduate status. It is probable that an economic imperative underlies this ambiguity; the blurring of the

constructed reader corresponds with the blurring of the boundaries of academic and market discourses.

In this textbook, colour is an important resource for visual communication. In terms of realising the interpersonal function, colour may convey affect, meaning that it may enable the speaker to express a certain mood or attitude. Rang's pure bright reds, blues and yellows remind one of Kress's reference to a "Mondrian colour scheme" which "are key signifiers of the ideologies of modernity" (Kress & Van Leeuwen, 2002: 356). Their meaning potential connects to contemporary and current ideas. Colour differentiation, or the diversity of colour in the design, is a key affordance of affect, and Rang's colours echo the energy and exuberance of the sailing ship on the cover. The choice of flat colours rather than colours that are modulated with tints and shading is related to 'modality' or truth value. Rang's flat colours suggest "abstract truth" (Kress & Van Leeuwen, 2002: 357) or impartiality. Both the flat colour and the choice of primary colours underscore the simplicity and boldness of the title word 'Pharmacology'. However, the communicative function of colour in Rang is not restricted to affect. The colour blocks have an ideational function in that they identify specific classes and topics that belong together. They also function on a textual level, in that they form the main organisational structure of the book. The table of contents is colour-coded into six major sections. These colours are carried through to the spine of the book, facilitating easy access to a specific section, thus creating a particularly user-friendly impression.

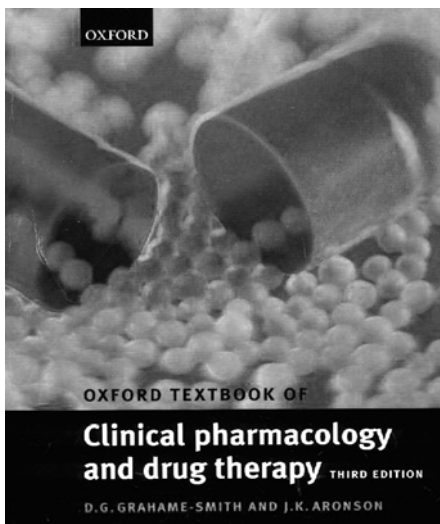
On closer inspection of the table of contents, it is clear that the majority of the chapters are organised around specific organ systems and the particular drugs that impact on that system. For example, there is a chapter entitled "The heart" with its subtitles "Physiology of cardiac function" and "Drugs that affect cardiac function". Clinical conditions are represented as a subsection of a particular drug group, for example, malaria is a subheading under "anti-protozoal drugs". In other words, the organisational structure of the book tends to position the subject of Pharmacology as the study of products (drugs) and their associated biological and pathological aspects.

It seems that Rang's visual appearance, author-reader relationship and knowledge content bear the imprint of a scientific discourse rather than a clinical one. However, the new curriculum's shift towards a more integrated, clinical version of science requires that only scientific principles directly relevant to the commonly used medications be considered core knowledge. This view frames drugs within the clinical context rather than viewing them as independent 'products'. Furthermore, the curriculum's patient-centred ideology dictates that both drug and non-drug (lifestyle) management are taught as being equally important; in fact, the subject of Pharmacology is now referred to as 'therapeutics' rather than 'pharmacology'. Rang constructs a medical model view of Pharmacology. However, Rang's ideological orientation may be obscured by its modern visual design as it connects on an

interpersonal level with the private and public lifeworlds of its readers in their capacity as members of a contemporary society.

## **Textbook 2: Selling the philosophy of Therapy**

The *Oxford textbook of clinical pharmacology and drug therapy* is the officially sanctioned textbook for undergraduate medical students. Oxford's front cover consists of two parts (see Figure 2). The top part represents a large image of tablets spilling out of two containers. The image is blurred and out of focus. This, together with the choice of muted pink, red and blue, causes the image to recede visually. By contrast, the lower part of the cover is taken up by the book's name and those of the authors, printed in clear thick letters on a black background. The absence of bright or warm colours and the long, almost ponderous title afford it a serious tone. The name of the publisher appears twice on the cover page. Compared to the exuberance of Rang's sailing ship, the name Oxford indexes the prestige of an internationally known institution, thereby contributing to the academic tone.



*Figure 2: The cover of Oxford textbook of clinical pharmacology and drug therapy*

Closer inspection of the cover's composition reveals characteristics of other lifeworld practices. In media advertising, for example, advertisements are often structured along a vertical axis, where "the upper section visualizes the 'promise of the product'" (Kress & Van Leeuwen, 2006: 186). This is also described as the Ideal, the "realm of the consumer's supposed aspirations and desires" as well as "the generalized essence" of the topic or information (Kress & Van Leeuwen, 2006: 187). On the cover, the image of unidentified tablets in the upper section suggests the generalised theme as being medication or drugs. The choice of modulated or shaded colours suggests that the tablets belong in a naturalistic realm. In this instance, colour is



also a modality marker in that it may signify a naturalistic interpersonal relationship between doctor and patient. By comparison, Rang's cover constructed an abstract and distanced relationship to the topic with the use of the flat primary colours of an MRI. The design elements of Oxford's cover strongly suggest that one should 'ideally' learn and know Pharmacology in the context of treating patients. Oxford's lower section confirms this point: the title "Clinical Pharmacology and Drug Therapy" is represented in the realm of the Real. Not only does Oxford's lower section describe a particular view of the essence of Pharmacology; it also adds truth value to the Real by anchoring the title in solid black and white. This suggests a certain permanence or legitimacy and may also signify a notion of right and wrong. Oxford's cover page thus makes a firm visual and linguistic claim about its view of Pharmacology as 'therapy'.

While Oxford clearly stakes a particular ideological claim, it does so within wider orders of discourse, and it therefore also bears imprints of other discourses. Intertextuality refers to a text's historical connection to other texts (Fairclough, 1992). The composition of Oxford's cover borrows from advertising genres, and so appropriates aspects of public lifeworlds that one would not expect in a scientific text, such as the Ideal/Real layout. This is an example of conversationalisation (Fairclough, 1992); it attempts to make science seem 'ordinary' by relating it to the reader's 'ordinary life'. By contrast, the MRI chosen for Rang's cover entrenches the exclusivity and desirability of being a member of a scientific community. Oxford's market-oriented genre can be described as 'telling-and-selling'. The 'ordinary' is usually linked to common sense; therefore, it may contribute to the naturalisation of Oxford's ideological view. Even so, it is still a marketing strategy, pointing to the infiltration of discourses of the market-place and the spread of consumerism into academic fields.

There is a marked contrast between Oxford's cover page and the remainder of the textbook. For a start, the image on the cover is the only picture in the book. Instead of continuing in a style associated with public lifeworlds and mass-media texts, Oxford reverts to the stereotypical features of a serious academic publication. Compared to Rang, there is no 'riotous colour' in this instance. Apart from a muted red used for headings, the densely printed pages feature a monochromatic palette. The only breaks in the print are provided by tables and graphs. Oxford shuns elements that may be considered frivolous or distracting, and its overall impression is neat, disciplined and business-like.

Oxford's preface is short and contains less detail about the subject, but does state that "one of our particular aims in writing this book has been to marry the scientific disciplines with the practical approach to drug therapy" (Grahame-Smith & Aronson, 2002: preface). The first sentence is significant: "We have written this book with the needs of medical students in their clinical years paramount in our minds" (Grahame-Smith & Aronson, 2002: preface). This, then, is the key to Oxford. It positions itself as a tutor that teaches integrated Pharmacology to students in the context of a clinical

medical discourse. By contrast to Rang's abstract and artificial environment, this is the world of consultant-led ward rounds, bedside tutorials and patient interviews.

In line with the power structures characterising traditional academic medical education, Oxford constructs a more formal, lecture-style relationship between authors and readers. Rather than the conversational and humorous commentary found in Rang's preface, Oxford's tone is more authoritative and its language more business-like. For example, the authors declare that "some may be surprised that we have not included references. We did not feel this to be necessary" (Grahame-Smith & Aronson, 2002: preface). These clauses construct what Halliday (1985: 103) calls a "one-participant material process" which focuses attention on the Actor, in this instance Oxford's authors. Thus, in this case, the writer-reader relationship is unequal and distanced, "someone telling what the case is in no uncertain terms, and someone being told" (Fairclough, 1992: 76). By playing down the need for references, the designers also position the content as 'absolute truth'. A seemingly contradictory statement reads that "it is always possible that errors have been missed ... we urge all who use this book to consult ... other sources of information before prescribing" (Grahame-Smith & Aronson, 2002: preface). Rather than reflecting on the truth value of the text, this statement expresses Oxford's commitment to aspects of personal responsibility and accountability. In other words, they urge readers, as future prescribers, to assume a similar responsibility for their own texts, namely prescriptions, by verifying drug information with other resources.

A closer inspection of the table of contents reveals an ideological orientation towards patient care. Chapter one is headed "The four processes of drug therapy" and the word "process" is repeated nine times on that page. The dominant message is that Pharmacology is about therapy, and that therapy is a process, rather than a drug. This contrasts sharply with Rang's product-oriented disposition. Even a chapter that deals with 'hard' scientific principles is explicitly oriented towards people: science is made relevant to the old, the young, or the pregnant. Psychological aspects of drug therapy are included as 'science', for example, patient compliance and placebos. Another section deals with the principles and rules on 'how to write a prescription'; this content is absent from Rang's textbook. Section three in Oxford is called "the drug therapy of disease". Each chapter in this section has a particular medical condition as its heading, rather than the drug topics in Rang. This means that a drug that is commonly used in several types of cardiovascular disorders, for example, is discussed repeatedly under separate topics such as hypertension, angina, cardiac failure and so on.

It is clear that Oxford is a textbook based, to a large extent, on a particular ideological view that centres on Pharmacology as therapy. Oxford's content presents the science of Pharmacology as a clinical and, therefore, more people-oriented version of science, where psychological factors can be regarded as 'scientific'. Simultaneously, the visual mode in Oxford evokes a more technical and distant view of science. According to Archer (2006: 455), scientific significations "serve to create

a disjunction between everyday common-sense knowledge and the systematised knowledge of the discipline". Text that is more impersonal, objective and technical in nature is regarded as more scientific. Both the written and the visual modes may express 'scientific-ness'; the written with specific lexicogrammatical choices and the visual with features such as diagrams, labelling and organising content into analytical hierarchies (Archer, 2006: 457). The word-dense pages, absence of illustration and colour and its more formal tone contribute to Oxford's legitimacy and 'truth value' as a scientific text. While Rang's design is geared toward quick access to drug information, Oxford's content is embedded in disease management. This means that, if students require information about a particular medication, they can only search for that drug's information in the context of the disease for which it is used.

## **Conclusion**

We have used a social semiotic approach to interrogating the choice of textbooks in the context of implementing curriculum change. The new medical curriculum foregrounds two ideological shifts: that of integration between clinical and scientific knowledge types in pursuit of 'generalist clinician' competencies, and patient-centred views of knowledge. In Rang, Halliday's ideational is constructed as an artificial world of drugs and biological systems, thereby presenting a technical and dehumanised view of scientific knowledge. In Oxford, the ideational constructs a more naturalistic world of clinical therapy, whereby scientific principles are integrated with patient-centred clinical practice. On an interpersonal level, Rang constructs a democratised writer-reader relationship aimed at a multilevelled and diverse audience (which may include undergraduate medical students), but a distanced and impersonal relationship with the subject matter. As such, it is an explicitly hybrid text, where medical discourse co-exists and clashes with discourses of 'hard science' and other lifeworlds. Oxford, on the other hand, appears to be written with the medical undergraduate student in mind. It emphasises the importance of the subject matter and foregrounds an attitude of accountability and patient-centredness. However, in doing so, it constructs a rather dated view of an authoritative 'knowledge transmitter' and of knowledge as 'absolute truth'.

In terms of textual coherence, Rang's content is organised in drug categories and, since that type of design facilitates easy access to information on a specific drug, it creates a distinctly user-friendly text for its readers. However, Rang's scientific and dehumanised discursual orientation to Pharmacology may be unsuitable for students of the new integrated, patient-centred curriculum. Oxford may seem more aligned to the ideological views underpinning the new curriculum. However, its hierarchical authorial voice may alienate students as citizens of a post-Fordist modern society (Gee, 2000; Kress & Van Leeuwen, 2006). Furthermore, since its design and layout make it extremely difficult to study Pharmacology as 'drug knowledge' rather than 'therapeutic knowledge', prescribing Oxford has implications for the type of examination questions that may be used in student assessment. In the process of

selecting or rejecting a textbook, difficult choices need to be made which entail certain gains and losses and require reflection on pedagogical processes such as alignment between learning objectives, curriculum content and assessment practices. It is clear that these texts both reflect and construct contesting discourses in the field of medical education, in what Luke (1996: 308) refers to as “a battleground for a politics of representation”. What is included and excluded in textbooks signifies more profound political, economic and cultural relations (Apple & Christian-Smith, 1991: 3). This type of analysis highlights the ways in which educational textbooks can contribute in more or less explicit ways to Bernstein’s “battle over curricula”, which is “also a conflict between different conceptions of social order” (Bernstein 2003: 81).

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