Making a Case for Interactive Texts in Language Learning and Teaching: The Role of Hyperfiction in Developing New Literacies

Hypertext has become a common reference point for CALL applications and hyperfiction is on the verge of becoming one too, it might be useful to briefly point out some of the major critical aspects of our current understanding of those terms.

1. Hypertext/Hyperfiction

The relation of hyperfiction and hypertext seems to be apparent, plausible and also chronologically proven. The relation of hypertext to text also seems to be apparent, plausible and chronologically proven. In other words, all references go back to the definition of text. In one of his most often quoted definitions of hypertext Nelson consequently stresses the non-sequentiality of hypertexts in relation to text: "By hypertext I mean non-sequential writing – text that branches and allows choices to the reader" (Nelson 1987:0/2). Subsequently, the notion of hypertext as being non-linear text, "a space without any linear limitations and restrictions" as stated by Michael Joyce (quoted in Kuhlen 1992:13) has become the dominant description of hypertext. However, although electronic hypertexts undoubtedly constitute a new species of text it remains largely opaque just what the innovation is, except obviously for the electronic transmission of text (cf. Bromme et al 2002).

Firstly, the notion of text is anything but a homogenous fixture: Some (as Harweg 1968:148) consider it to be a sequence of pronominal chains. Others see it as a sequence of sentences (Figge 1994:9). Yet others treat text as a complexe utterance, an action type or the totality of signals occurring in a communicative interaction (Kallmeyer 1974:45). Weinrich (1981:228) even goes as far as claiming: "Among all imaginable linguistic units, the oral or written unit called 'text' (…) has a most prominent status as the only given unit. (…) it is given by communicative evidence. There is no need for the text to be defined." If it isn't clear what a text really is, or if it is a vastly open notion, how can we be precise in telling what the innovation of hypertext is? Is it perhaps just text that fits the philosophies of deconstructivist and post-structuralist theories?

Secondly; non-linear texts have existed all along: think of genres such as dictionaries, encyclopedias and other kinds of "non-linear" reference materials or timetables, cook books, EUROCALL programs etc.

Thirdly, just how non-linear is hypertext really? When an author writes a text, he or she will normally have a structure and a certain order in mind. In hypertexts, and certainly in hyperfiction, this is not different in principle, just more diversified perhaps.

This is certainly true for any sort of "pre-arranged" hypertext. It also holds for "open ended" hypertext structures, such as open internet programs that allow the reader to navigate through resources which are not prearranged in a certain order for him or her. There, the onus to generate some kind of coherence is completely on the reader.

Fourthly, literature, in particular fiction and poetic genres, is always under-determined. That is, it always requires the readers to make sense out of those limited and incomplete linguistic elements and fit them into existing concepts of the world. That is why readers will often read a "linear" text in idiosyncratic ways anyway, for instance when skimming texts or hopping in a text (e.g. reading the summary before the whole text; see Roche 2001 for a more detailed discussion of the role of literature in particular within an intercultural framework of language learning).

It therefore seems to be more appropriate to focus on the processes of reading than on the outer structure of hypertext itself in order to get a sense of hypertext's textual innovation and its possible benefits in CALL applications. For that purpose one ought to look at the central elements of reading processes, that is, how coherence is generated and progresses in the process of reading. When a writer writes a text, he or she will project his or her own sense of coherence on the text. This will be expressed by various structural, semantic and pragmatic means. As

mentioned before, this is also generally reflected in hyperfiction. The essential difference is thus that in hypertexts the author produces various coherent paths through the text, usually by relying on a structure which allows the reader various combinations of text modules. Still, even in "traditional" texts such paths are normally inherent in the text but not necessarily marked as modules on the surface as in hyperfiction. Nevertheless, the task of making sense out of such modules (e.g. how to combine them and how to infer between them) and/or the inherent strands hidden by the author rests with the reader anyway. When tackling this task of generating coherence the reader operates on 2 levels: he/she analyses and combines recurrent elements (on the horizontal level) by using textual, linguistic and meta-linguistic clues (e.g. pronouns, synonyms). Those associative recurrences are constructed either by going backwards or forward in a text. In a similar bi-directional way the reader has to achieve a hierarchical integration of concepts, references, themes and other semantic clues. In hypertexts those tasks are comparatively speaking more demanding on a reader as the level of incompleteness and thus uncertainty is usually higher, and even more so in fictional texts. It is perhaps the degree of required inferences that distinguishes hypertexts from traditional texts the most.

In my view, the textual criteria I just very briefly sketched out here offer CALL experts and practitioners some important means in determining whether or not hypertexts are indeed the way to go at all times. Afterall, hypertexts are not per se easier or more accessible texts. While hypertext CALL programmes such as *A la rencontre de Phillippe* or *Berliner Sehen* work extremely well with certain students, similar programmes will largely overburden others. This is, by the way, also true for unguided and undirected internet programmes which are by definition hypertexts and often immerse learners with an insufficient command of the foreign language. Depending on the competency level of the learners, CALL programme developers may want to a. limit the quantity of available hypertextuality (e.g. links) and/or b. give preference to a certain link category. I can imagine that beginners can work better and more successfully with associative links, that is links that establish recurrencies and simply connect elements, while more advanced learners will definitely need to work to a considerable degree with hierarchical links – that is links that integrate information in larger knowledge systems – if they ever want to acquire native-like competencies in a foreign language. If

they have a certain foundation of knowledge, this will motivate them to, and enable them for, all kinds of rich explorations. In other words, CALL developers could use the different qualities, levels and directions of links and clues as variable parameters to fine tune programmes to the developing needs of learners and determine the mix between them.

2. Pedagogical aspects/didactic motivation

When contemplating the hyperfiction route, in addition to competency levels and the like, developers and teachers need to consider cultural-specific as well as idiosyncratic learning attitudes, goals and strategies (e.g. independent learning) of their clientele (cf. Reeder/Roche et al. 2001). Not every type of learner will be prepared to, or interested in, dealing with the level of independency required to work with open structures.

Using interactive hypertexts such as hyperfiction in language teaching and learning may not only help alleviate the problems discussed in a number of ways but also contribute a number of additional pedagogical benefits.

Hyperfiction

- fulfils the criterion of authenticity of texts in the sense of modern communicative approaches to language learning and teaching;
- is a new literature genre, and possibly one which is more easily accessible by younger generations of learners than traditional literature genres
- is generated through the new media and not just projected on them as so many scrollable teaching and learning resources; working with hyperfiction is therefore "media-adequate" and fosters the development of new literacies
- constitutes an interactive (literary) genre and therefore ideally addresses the requirements of modern language pedagogy and learning psychology, e.g. it naturally contains shorter and therefore more manageable textual chunks; it often uses colloquial language and offers natural redundancies; stimulates questions and addresses a natural sense for exploration; focuses on creative processes as opposed to merely receptive processes; stimulates transfer and further writing
- fosters those exploratory skills characteristic for constructivist (and constructionist) learning theories and reader-response criticism
- lends itself to interfaces to instructionist learning and

teaching elements therefore allowing access for learners of different competency levels and learning styles and reducing the risk of getting lost in cyberspace

- gives learners different levels of control depending on their competency levels
- is readily available (e.g. through particular websites) and – as a fictional genre – does not really age.

3. Chapter demonstration: uni-deutsch.de

In an innovative online programme for the teaching and learning of intermediate and advanced German called

Intro page of hyperfiction chapter of uni-deutsch.de

*Night in the city: one of several entry points into the story*

uni-deutsch.de (Roche 2003a) one chapter is particularly dedicated to teaching hyperfiction as a media-adequate genre. This chapter has been produced by its main author Marika Schwaiger and a team of authors and technicians according to the design criteria and considerations out-

lined above. It contains three modules. The first one which I shall present here briefly is based on a mystery story by writer Romana Brunnauer: *Zwei Tote?* (2 deaths?). It is arranged in five segments and a historic excursion unit around the theme of city living. The segments deal with the topics of 'night in the city', 'renting', 'the puzzle', 'the puzzle's solution' and 'the tenants'.

Night in the city is a segment which activates readers' generic perceptions and connotations of the theme such as laying awake in the early hours of the morning while hearing all kinds of puzzling sounds (which the story in fact lets them hear). Guided by several tasks and exercises they are asked to brain storm and to follow up on their ideas. Similarly, the topic 'renting' is used in a non-specifc way activating readers' general thoughts on the theme, such as the functions of signs, house rules etc.

The day begins: another, more specific entry point into the story
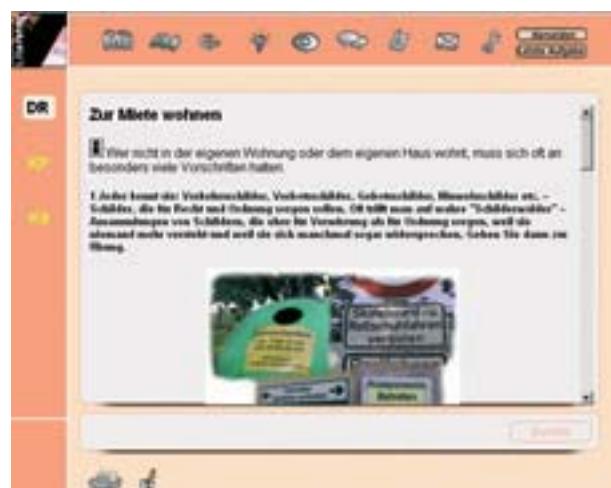
Entry to the theme of renting

By contrast, the topic 'the tenants' provides some more concrete information on the four parties (7 people) living in the house. Some information is also given on the condition, the history and the plans for the renovation of the house which has changed owners recently.

In the 'puzzle' and 'solution of the puzzle' some of the previous resources reoccur but more specific hints are provided on the actual situation of the house, its tenants, the new owners and the doubtful future of the house. Tenants' conversations are recorded and can be replayed by the reader in any combination and order with the actual time recorded in the chronological sequence of the occurrence of those conversations allowing the learner to retrace crucial encounters in the house prior to the murder.

While working with the chapter, learners have access to a number of lexical, grammatical and cultural resources and communication features at all times. Free demonstration tours of the program's two major modules can be viewed at www.uni-deutsch.de.

The program can easily be used by different learner types as it allows various access routes to the contents such as from the general to the specific or the specific to the general. While a more hesitant and structured learner will likely choose a more guided access route to the program (e.g. through the tenants' unit) a more explorative learner might want to choose an open route requiring hierarchical integration to a higher degree. Both the hierarchical and horizontal levels provide redundant information making it easier for the learner/reader to connect various fragments of the story without loss of fictional aesthetics. The risk of getting lost in hyperfiction is thus reduced to a minimum. If a reader/learner encounters coherence voids in the (re-)construction of the text, he or she will find specific references to fill the void in a different segment of the hyperstory. In addition, accompanying tasks and exercises guide and aid the learner/reader in navigating and digesting the materials. Also, reading strategies are integrated in the program to prepare students for, and practice, independent reading of both non-fictional and fictional literature.

Critical levels of reading skills are essential for the successful completion of reading tasks and thus play a crucial role in designing teaching materials. An approach such as ours offers a large array of different access routes -- and therefore allows readers/learners of different competency levels access -- to the texts.

4. Future plans

Our theoretical and practical approach to designing and using hyperfiction materials in language learning and teaching is supported by a recent indepth study on the effectiveness of the various link levels discussed above. This comparative study by Andreas Hendrich (2003) convincingly shows significantly better results in the comprehension of hypertexts when both the horizontal and hierarchical directions of links are present in the texts and available to the readers. Readers who had only one level of links, that is either hierarchical or associative links, available for reading obtained lower comprehension results. Such studies as well as an ongoing project on developing a theory-based framework for the systematic evaluation of language learning software (Roche 2003b) have encouraged us to conduct empirical studies on the reading processes and effectiveness of our hyperfiction chapters. The goal of those studies with various learner types and different learning environments is to identify effective processes of language learning, to determine crucial parameters for language learning and to develop guidelines for the design and production of language learning programs.

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