Metaphor and Education

Graham Low

Metaphor makes things exciting and understandable and, as such, has been applied to education since time immemorial. However, education is now an enormous area and the number of articles and books dealing with metaphorical aspects of it is far beyond the scope of a short article.[1] What I want to do in this chapter is to select a small number of topics that I consider to be central to education, but which remain problematic in one way or another, or are simply unresearched. I shall attempt to examine why they are problematic and establish, more positively, if anything can be done to reduce the problems.

I start by considering the role of metaphor in implementing educational change. I argue that metaphor analysis does have a useful role to play, but that many of the published examples, from Schön's (1979) generative metaphor, to the semiotic analysis of Labbo (1996) and Oxford et al.'s (1998) language teacher/ing metaphors, tend to over-identify metaphor and ignore the complex and content-sensitive role of metonymy. Metaphoric modelling in education cannot be somehow outside the normal constraints and rigour of empirical academic analysis.

I then go on to look at the importance of metaphor in teaching and learning. The last half of this section concentrates on the important problem of foreign language teaching, where learning about the subject is *not* the aim of learning and indeed may have little effect on language acquisition. After a brief review of metaphoric competence, I examine three fairly practical problems: when to teach things as metaphor (and when not to), how to cope with cultural differences, and whether to teach basic senses first. Essentially, I argue that we cannot just apply recent cognitive theory indiscriminately to the classroom. We need, for example, to think carefully about how much metalanguage learners can reasonably be exposed to. We also need to consider how metaphor is used at discourse level (i.e. not just as an aspect of vocabulary), and to establish what it is that we want learners to actually do with metaphor. Lastly, we need to recognise that testing for 'metaphoric competence' in a foreign language poses particular difficulties for proficiency testing as currently conceived.

The chapter ends with some recommendations for future research.

Metaphor and Educational Change

Educational concepts and processes are frequently described in metaphoric terms, either as single "A IS B" metaphors (e.g. EDUCATION IS PREPARING MENTAL MEALS; LEARNING IS POURING WATER INTO A JUG), or as clusters of metaphors. The reasons for creating analogies or models are generally fairly obvious; one wants to,

- find a salient, memorable label for an otherwise difficult concept;
- clarify a concept which is diffuse, abstract, or generally complex;
- extend thought; or
- locate problems with a particular conceptualisation and then bring about some sort of change.

It was this last point which led Schön (1993) to develop his influential narrative approach, which he called "generative metaphor". In most therapy or counselling sessions, the analyst lets the patient talk freely about his/her life and problems and listens for key events or key words. If key terms are identified, these can then be focused on and become the basis for further action, or treatment. In reality, things are more complicated than this and recent research (e.g. Cameron, 2003b; Cameron & Stelma, 2004) has emphasised the to-ing and fro-ing of metaphor between counsellor and "patient". However, Schön's idea was that if planners listened to the "stories" told by people affected by a situation, these people would spontaneously indicate, by their use of metaphor, what was uppermost in their minds and the way they conceptualised their problem(s). The planners thus needed to listen out for the salient metaphoric expression, establish what it showed in the speaker's mind, translate this into what it implied in the planners' conceptualisation of the situation, and then make changes. A metaphorical version, almost, of grounded theory in education. It is the fact that the metaphor, once located, leads planners to think in new ways and to implement changes they had not thought of that

explains Schön's use of the label "*generative metaphor*".

The generative metaphor procedure makes two problematic assumptions. The first is that the speaker does in fact conceptualise the situation in metaphoric terms. Unfortunately, this assumption is belied by Schön's own examples of housing policy, which either show metaphor closely linked to metonymy (urban areas can show "decay" and communities need to be "healthy", p. 145), or, in the case of a locale likened to a "natural community" which needs space to interact (p. 146), are almost entirely metonymic. The second assumption is that the informant does not need metaphoric language to indicate or convey metaphor. However, if no metaphoric language is needed, it becomes virtually impossible for the researcher to validate any metaphors identified. One might argue, though Schön does not, that identification is possible if phenomena like pictures coexist with the narrative – or in the case of oral narratives, coughing, drawing pictures, or behaviourally acting out a metaphor while talking (Low, 1999, 2003). The value of this sort of secondary support is emphasised by Cortazzi and Jin (1999) in their similar, "narrative" approach to discovering teachers' conceptualisations of learning. But the point is that the images or behaviour constitute *further* evidence of metaphor, not the *only* evidence.

One might also note that neither of the planning texts cited as evidence by Schön are "stories" or "narratives" by affected users, in the sense that Cortazzi and Jin's speakers were the teachers or students who were the interested parties. Rather, the texts were by planners or by later analysts, so one might argue that context is important and that different parties will generate evidence of different types and values.

To sum up, framing problems is fine, but you cannot assume the framing is metaphoric. Indeed, metonymy may even be an inevitable aspect of generative metaphor. It is noticeable, for example, that Block's (1999) excellent attempt to apply generative metaphor to second language acquisition research situations resulted in a set of

examples that were almost totally metonymic. Similarly, Sarason's (1993) use of Schön's procedure to argue the case for wholesale educational change in the United States generated (as it were) two valuable perspectives, "primary prevention" and "reform", but how far these are genuinely metaphors is highly debatable; despite the persistent use by one of the book's reviewers of "new images" and "multiple lenses" (Harrington, 1994), the concepts are better seen as metonymies, or even as quite literal activities. Lastly, both the nature and source of the data used as input are important and need to be discussed as part of the procedure.

This sort of metaphoric modelling has proved particularly attractive to language educators, who have not only constructed metaphoric models of language learning and teaching, but have often linked them to teacher development. Indeed, the implication can be that teachers found to be misconceptualising, say, language as a conduit, are in need of some sort of re-education (Block, 1992; de Guerrero & Villamil, 2002). In a short survey of such models of teaching and learning (Low, 2003), I noted four methodological problems that echo the comments above on generative metaphor.

Problem 1: Assuming a Priori That Metaphor Must Be Involved

The assumption that all observed behaviour can be treated as metaphor, and that clusters of metaphors can always be given "overarching" labels goes well beyond Schön's claim and is a feature of semiotic analysis (Labbo, 1996). However, Labbo's own study of children developing aspects of literacy in their first language illustrates two of the difficulties of making this assumption. First, the author admitted to creating the metaphors to match her own interpretation ("It cannot be assumed that screenland is a metaphor the children would sanction", p. 380) and secondly, even the data cited at times failed to provide a justification for treating it as metaphoric. Simply finding children playing around in class, for example, is not by definition metaphoric, unless evidence can be

found of play being treated by the children as something else (or vice versa).

Problem 2: Identifying an Underlying Metaphor Simply Because an Expression Is Consistent with It

This is a frequent complaint about conceptual metaphor research in particular and can simply indicate an over-enthusiastic analyst. An example would be where Oxford et al. (1998, p. 12), conclude that reports of a teacher rushing through a syllabus "therefore led to the inescapable . . . Teacher as manufacturer metaphor". The reports are consistent with the metaphor, but no more. One cannot use them to make claims about metaphors of teaching.

Problem 3: Treating a Descriptive Model as a Procedural Model

The fact that someone uses a metaphoric expression does not prove that the underlying metaphor is actively used by them as a guide to thinking or acting. Neither does the fact that an analyst finds a metaphor to be an apt way of capturing the essential details of a situation. Hence, Scribner's (1988) description of literacy as "divine grace", where above-average readers are in a "state of grace" but below-average ones have fallen from it, carries no implication whatsoever that readers themselves conceive of their skills in religious terms. In Bartelt (1997), a group of English as a foreign language (EFL) university students consistently reported translating from their first language (L1) when they spoke the target language (or L2). Bartelt interpreted the translation as a metaphor (though the evidence for this is not convincing) and noted several times that this was a description of the data. At the same time, however, he argued that the model was in effect procedural, and that it "largely determine[s] not only perceptions, but also the types of interaction selected [by the learners] to deal with in the [external] environment" (p. 34) and that the saliency of the model in the learners' brains was sufficient to necessitate a wholesale change in teaching

methods (p. 33). It may well have been the case that a change would have been highly desirable, but specific evidence is needed to argue that the cause of metaphoric language or behaviour is an internalised procedural model.

Problem 4: Reporting Metonymic Links as If They Were Metaphor

Oxford et al. (1998) propose, on the basis of their data, the metaphors TEACHING AS REPEATING and TEACHER AS DELEGATOR. The problem here is that teachers have to repeat and delegate many times in a quite literal fashion as part of their basic job. Focusing on the relationship between delegating and teaching at the expense of the teacher's other roles is metonymy, not metaphor. For repeating to be metaphoric, the teacher would need to appear to be repeating, while not actually repeating. A more complex example of the same confusion comes from Block (1992), who reported the student-generated metaphor A TEACHER IS A FRIEND. If a teacher acts "like a friend" without actually being one, a limited case for metaphor could be sustained. On the other hand, being friendly is simply one core aspect of being a professional teacher, so there is a strong case for metonymy. If the student feels that the friendliness is sufficient to justify seeing the teacher as a real friend (or more realistically perhaps, as a "sort of friend") then presumably the metaphor claim would become invalid. The classification "being my friend" is notoriously unstable with teenagers and so the claims for metaphor or metonymy could vary with context: both between students and within students, that is, from hour to hour.

The role of metonymy in educational models is extremely interesting from a conceptual or a discourse point of view, but one needs to ask whether it is as interesting from an educational viewpoint. In one sense, the planner or teacher trainer is simply presenting the reader with a series of characteristics of the job or task, noting that some people overemphasise one or two of the characteristics and suggesting that such an imbalance

can lead to undesirable teaching or learning behaviour. On the other hand, the TEACHER AS FRIEND example shows that metaphor and metonymy can be hard to differentiate because the grounds for categorisation can vary depending on context. This context dependency can become important if the object of the analysis is, as it is with generative metaphor, to implement long-term stable social or educational change.

Just as Lakoff and Johnson (1980) explored the points where different metaphors for, say, ANGER are inconsistent or cannot be mixed, so one other important use of metaphoric models is to examine multiple metaphors for vagueness, ambiguity, or confusion within an education policy, or policy document. Thus, Goatly (2002) dissected the various metaphors of the Hong Kong government's (2000) proposal for educational reform and established that several either involved little actual reform, or else appeared to act more as a barrier to reform. Either way, they clashed with the metaphors that did appear to suggest genuine reform. Goatly concluded that the government was offering mixed messages, or simply being vague by using the same lexeme (*construction*; *building*) to mean several, often opposed, things.

In sum, then, metaphor analysis can play an important role in establishing educational problems and indicating fruitful directions for change, but only where methodological precautions are taken and the evidence is rigorously evaluated.

Metaphor and Teaching/Learning

Metaphoric models repeatedly present the educator with metaphors in A IS B format (e.g. TEACHING IS BREADMAKING) – a format much less frequent in naturally occurring discourse than verb, or noun, phrases. One may accordingly ask whether learners too should be presented directly with metaphors or analogies in A IS B form.[2] For subjects other than language, the position seems uncontroversial and backed by a range of research studies. Using analogies is an

essential aspect of academic expertise, whether one is discovering things or creating theories (Goswami, 1992; Holyoak & Thagard, 1995; Sutton, 1993); they are "an utterly essential part of theories" (Campbell, cited in Hesse, 1966, 4); they allow the teacher to communicate with learners who have not mastered a theory (Lawson, 1993); they allow learners to visualise abstract concepts (Duit, 1991); they allow learners to generate inferences and testable predictions (Dagher, 1995; Duit, 1991; Gentner & Holyoak, 1997; Holyoak & Thagard, 1995; Lawson, 1993; Sutton, 1993); they motivate learners (Duit, 1991); they allow the teacher to tailor teaching to individual needs and levels of understanding (Duit, 1991). Metaphors also affect subsequent behaviour (as where Bromme and Stahl's [1999] students created different types of hypertext documents, depending on the "hypertext is . . ." metaphor they had learned). Finally, Cameron (2003a) noted that if a metaphor is adequately salient, it can also aid recall at a later date, particularly if it is concrete rather than abstract (Harris et al., 1999, 7).

A IS B format seems particularly important where younger children are involved. Research suggests (e.g. Cameron, 2003a; Gentner & Toupin, 1986) that they cannot work with analogies and metaphors unless (a) the metaphors are presented explicitly, (b) Source–Target correspondences are given, and (c) the children have an adequate understanding of the Source domain *before* the metaphor is given. Cameron's (2003a) study showed that this latter point applied *within* a (class) discourse as well as between sessions; metaphor only really worked with 10-year-olds when the Grounds had been given by the teacher and understood earlier in the same lesson. Sequencing of metaphoric language and information within a lesson is therefore crucial.

A further constraint was noted by Spiro et al. (1989). Spiro et al. were concerned that single A IS B metaphors were leading university medical students to create oversimplified and even false models of the concepts being taught, and that the problem was exacerbated where everyday senses of terms were transferred to scientific domains. One of their suggestions was that teaching should involve multiple metaphors, where each metaphor was designed to compensate for what was being backgrounded by the others. There have been few empirical tests of such systematic convergence, but Cameron's observational study did find that successful primary teaching of science appeared to correlate with the use of more than one metaphor.

Another area that is important, but which is relatively unresearched, is the extent to which explicit training in metaphor might help learners cope with poor or misleading explanations by textbook writers or teachers. This sort of situation can occur even in quite surprising contexts; just to give one example, Low (2005) examined how an account of (Darwinian) evolution of life on earth in the leading article of a high-status science magazine was (ironically) full of animacy terms and metaphors. It is clear that humans do compensate "naturally" for rhetorical devices such as extreme case formulation in conversation (thus mothers adjust rapidly to "But *everyone's* got new trainers, Mum!"), but how far this skill extends to coping with academic explanations is unknown. We might expect the finding (above) that metaphor training leads to a greater ability to find and solve problems to extend to poor explanations, but apart from some support from a study by Littlemore (2004), again we simply do not know.

A constructivist approach to learning would predict that learning would be increased if students could engage critically with academic concepts by generating their own analogies. BouJaoude & Tamim (2000) cite a series of studies which indicate that this is (or can be) the case; students who were able to generate their own analogies demonstrated an increase in critical thinking, questioning and problem-solving skills, and an ability to apply them to scientific texts and ideas (Middleton, 1991; Wittrock & Alesandrini, 1990; Wong, 1993). They also demonstrated greater recall of subject-specific detail when reading (Glynn, 1996). The fact that this can happen does not imply

that all students find analogy generation easy or helpful. Of the fifty-one 12-year-olds studying biology in BouJaude and Tamim's study, for example, all reported that analogies helped them recall concepts taught, but only 18% said they would use them without the teacher's advice and just 6% found them helpful for studying (2000, p. 62); the others preferred study methods relating to what appeared in their exams.

Learning a second language is not the same as studying science. Knowing about a language is not the same as using it, reacting to words out of context is not the same as using them in context and, most worryingly of all, it still remains singularly unclear how far direct instruction actually facilitates acquisition. Being presented with models or rules of the grammar of the target language, for example, appears to have minimal effects on language learning, particularly where the advice is intended as developmental or as corrective feedback (Norris & Ortega, 2000; Truscott, 1996, 2004). Truscott did however note that in some studies, direct presentations of grammar rules nevertheless resulted in increased learning of lexis, rather than grammar. This would seem to suggest that there is a chance that A IS B presentations might aid the acquisition of at least some lexis. Whether they will aid learners to *use* the lexis productively is entirely another matter. To date, however, the bulk of the published interventions have proposed precisely that: increased learning should result from the student being shown (or intuiting) the A IS B metaphors which underlie target language vocabulary (or grammar) items, followed by some sort of discussion with the teacher, or between the learners. It has to be said, however, that most of the studies in the literature are not randomised controlled trials, or even controlled trials, and few involve adequately delayed post-tests. Some are basic pre-/post-test studies, but others are simply suggestive or anecdotal. An example is Rich (2002), who recommended, on the basis of undisclosed experience, that EFL students may profitably generate and discuss metaphors of the classroom and learning, as a way of group bonding

and of raising awareness of one's own culturally derived expectations about teaching and learning.

More weight can be put on the results of a number of small-scale empirical studies. Littlemore (2004) for example reported that a group of university EFL students of business and politics were in general more able to think critically by comparing statements in L2 academic texts with metaphors, after undergoing an intervention involving guessing, comprehending, and exploring the implications of metaphors, in "naturalistic" as well as canonical A IS B form, in subject-specific discourse. The finding agrees with those of Middleton (1991) for biology, but the sample was very small and there was no control group. At the level of lexis, Boers (2000) found that EFL university students recalled vocabulary better in the short term if the expressions had, at the time of presentation, been grouped "meaningfully" in terms of underlying metaphors. In all cases, the metaphors were conventional not innovative. In a similar vein, Csábi (2004) found secondary school students had better short-term recall of phrasal verbs and idioms based on "hold" and "keep" when the underlying metaphors were explained to them.

What evidence there is, then, suggests that A IS B presentation can be useful to develop learner motivation and act as input to small group work. It is also easy for a teacher to move discussions about A IS B metaphor structure from regular class work to language awareness sessions. Lastly, it is not hard to instigate discussions where the learners dissect say LOVE IS WAR and develop new metaphors and exponents in the L2. One might predict that A IS B type discussions meet the requirements that language learners should engage actively with the language, reflect on it, and work purposefully on tasks using it (Doughty & Long, 2003).

However, while all this seems useful in making students notice patterns in the L2 and relate those patterns to real life phenomena or social expectations, there is no reason whatsoever to assume that it will increase

(a) their ability to understand a new message, or its implied appropriateness or creativity, or (b) their skill at producing a fluent, accurate, appropriate, rich, humorous or subtle L2 utterance. And it certainly does not guarantee an ability to sustain the to-ing and fro-ing of metaphoric expressions within an interaction.

Although Niemeier (1997) suggested that conceptual metaphors like TIME IS MONEY lend themselves to a variety of classroom presentation formats, which allows teachers to appeal to different types of learner (repeating the point made by Duit 1991) and to develop holistic teaching methods which provide input visually, intellectually, and physically, the fact remains that there is a virtual absence of empirical intervention studies which systematically test and compare alternative approaches to teaching metaphor skills.[3] A number of suggestions are listed below, but most still involve ways of clarifying A IS B correspondences or making them perceptually salient.

Lindstromberg (1996) has suggested the use of conceptual diagrams when teaching prepositions and indeed trajectory lines (usually arrows) have been used for years to help learners understand time expressions. A conceptual approach to the metaphors underlying "Christmas is approaching" and "We are approaching Christmas" can certainly help the materials designer correct the directionality of the arrows relative to the referent. These are sometimes portrayed in textbooks in ways that run counter to the expressions they are illustrating; thus Hamp-Lyons and Heasley (1987, p. 57) have,

TIME1 --> T2 --> T3 --> T4
Past ----------> Present ---> Future

rather than, say,

TIME (past) <-- DAY1 -- D2 -- D3 -- D4 -- (future)
YOU ------------------------- ♦ ----------------->

but there is still no real documented evidence that this enhances the correct or more fluent use of expressions like "the day before yesterday", or "the following evening".

Again, Lindstromberg (2001) and Holme (2001), have both proposed that acquiring metaphoric items might be facilitated by acting them out, in the manner of total physical response (TPR) learning (Asher, 2000). The suggestion is based on the idea that large amounts of metaphor are embodied – in the sense that the Sources not only (a) refer to sensory experience, to the human body, or to relatively familiar actions involving it, but also (b) evoke some sort of sensory response by the listener. Holme suggested acting out tenses in English; Lindstromberg verbs of movement. There is now some preliminary evidence (Lindstromberg & Boers, in press) that advanced learners can learn verbs of movement efficiently in the short term using TPR, but more research is needed. One obvious difficulty with TPR as a generic solution is that, although some metaphors lend themselves to physical imitation, not all do. Many image schemata, for example, seem "drawable" but scarcely actable and even the primary metaphors suggested by Grady (1998), which tend to be correlations between actions and perceptions (like "Swallowing is Accepting") can be hard to act out in full. So, while the potential for acting out seems well worth exploiting (on the twin indirect justifications that multiple intelligences require multiple modes of presentation, as Neimeier and Duit argued, and that Asher produced valid evidence of learning at initial stages using TPR), it needs to be borne in mind that acting cannot account fully or at all for many metaphors.

One fairly obvious variation on acting or drawing is the provision of concrete objects. Basic objects, like containers, feature in several conventional metaphors and image schemata and group interaction with interesting objects has long been a stable part of primary level teaching. Li's (2002) use of physical containers in the classroom might therefore be expected to enhance learning the target language. Unfortunately, while the

results suggest that increased lexical learning did indeed take place, individual aspects of the teaching method were not analysable as separate variables, so all that can be concluded is that, like in Boers and Dechemeleer (2001), generally relating lexis to underlying metaphor enhances short-term recall.

A further device that has been suggested (e.g. by Boers & Demecheleer, 1998) as a way of dealing with the fuzziness and subtlety of metaphoric extension is to present learners with a set of sentences organised in a cline with the literal senses first, followed by increasingly metaphorical ones. Again, however, while the technique makes considerable sense for words with complicated patterns of extension (like "off" or "over"), there is no empirical evidence suggesting that it genuinely aids performance or learning, and even at an explanatory level it hides the divergent pathways (or radial categories) needed for an adequate explanation.

One possible approach to helping learners identify and work with L2 metaphor might be to teach it initially in explicit form as simile, paralleling science teaching accounts, such as "atoms are like solar systems". There may be some limited value to this in specific contexts, but many metaphoric expressions are not easily expressible as similes, particularly where a degree of possession is asserted; "You are my life" becomes almost meaningless as "You are like my life", or again, "Honey" becomes almost insulting if full identification is not made and the addressee is simply held to resemble a thick fluid. Even where a choice of format exists between metaphor and simile, people have been found to show fairly strong preferences for one or the other, depending on whether the transfer involves simple attributes or relationships (Aisenman, 1999). At a discourse level, similes are far from straightforward, and can be seen as avoidance and obfuscation devices as much as tools for clarification. People also have a tendency to interpret them differently from metaphors, relying much more on existing (or core,

or typical) semantic knowledge (Fishlov, 2003). This is even reflected in conventional expressions; "life is a joke" involves little or no humour, whereas "life is like a joke" may well do. In sum, similes have limited value as training tools for metaphor interpretation.

Before leaving this section, I would like briefly to return to the topic of primary metaphor. Grady and Johnson (2002, pp. 535–536) make the frequently observed point that conventional expressions relating to THEORIES ARE BUILDINGS, do not make use of several core characteristics of buildings, like having windows or walls. They argue however that such vocabulary "gaps" are better explained by going below the conceptual metaphor to "primary" A IS B connections such as PERSISTING IS REMAINING ERECT and ORGANISATION IS PHYSICAL STRUCTURE; a building is simply an exemplification of the primary metaphors. There is little in the way of published educational intervention studies, but intuitively, the idea of presenting language learners with primary metaphors has great appeal, especially if the learners are adult and at an advanced level. Teachers can ask, "Where exactly is the metaphor in this expression?" and answers like "intimacy is closeness" (leading to "psychological distance is real distance") may be easy to comprehend. On the other hand, it is unclear how far younger learners could understand explanations so far removed from the surface expressions and it is not at all clear whether any learners could cope with the categories of "primary scene" and "primary subscene" developed to constrain and explain the primary metaphors.

Establishing What to Teach

Deciding what exactly to teach is far from easy in language education. At times, it is clear that an expression or structure needs to be taught, but there is no agreement about whether it is (or should be treated as) metaphor. This applies particularly to

things like delexical verbs (e.g. "make a joke", "have a laugh") and to numerous fixed expressions (Grant & Bauer, 2004, have a good summary of previous arguments). At the level of discourse, identification problems can relate more to agreeing on boundaries than on word meaning; does one, for example, include the literal Target ("they") as well as the Source terms ("pigged out") as the "metaphoric expression" in a text? If a word is metaphoric, does one include all syntactically dependent expressions such as relative clauses (i.e. do they "inherit" metaphoricity?) (Steen, 1999). Staying at the level of discourse, there are further occasions when it may simply not be clear what metaphor is used for, how listeners and speakers use it, and/or whether one would wish to teach it anyway. Thus, although both Strässler (1982) and Low (1988) flagged the fact that many conventional emotion metaphors seem far more appropriate to third party reports than personal confessions in face-to-face interactions ("he hit the roof" rather than "I shall hit the roof when I see you next"), the topic remains relatively unresearched and Kövecses, making exactly the same point in 2003, is forced to rely on an anecdotal discussion with a single native speaker. A more poignant example is whether you actively teach learners to use metaphor to (verbally) attack individuals or else to operate, as politicians are often accused of doing, just this side of the edge of telling lies. The answer depends on your philosophy of language teaching. If you believe (as I do) that learners should be trained to survive in the real L2 world and actually be able to come out on top when they interact with native speakers, then the answer is a qualified yes.

A less controversial question is whether we ask learners to look for chains and clusters in discourse, and to produce them when they speak or write. There is abundant evidence that the phenomena exist in oral and written discourse. Metaphors regularly form chains through text (e.g. Garton et al., 1991; Koller, 2003), frames concurrently around whole texts, subsections and paragraphs (Low, 1997; Koller, 2003)

and clusters at key points (Cameron & Low, 2004; Corts & Meyers, 2002; Koller, 2003; Low, 2005; Cameron & Stelma, 2004). People create these effects for clarity, to focus the receiver's attention, or to induce a particular type of conceptualisation of the topic. There is some suggestion that the differing reasons are more concentrated in oral text (resulting in single multifunctional expressions) and can be more spread out in written texts (Low, 1997, 2005). Possibly inadvertently, producers also often add "outliers" to their clusters. These outliers are not "regular" metaphors, but take on a degree of metaphoricity by virtue of being near clear-cut metaphors (Low, 2005), and since they can occur before as well as after the metaphors, recognition can depend in part of how often one reads the text (Sayce, 1953). There would seem to be little reason for not teaching students to work with these phenomena in the L2, at least at an advanced level.

The Notion of Metaphoric Competence

Discussing metaphor interpretation and use in skill terms introduces the notion of metaphoric competence. At a very general level, few would deny that we want learners to develop metaphoric competence in the L2. The problem is trying to establish what that means in practice. Different approaches are possible. One could start with interactions and texts and list a number of key skills that learners need to do with them if they are to survive in an L2 environment. Examples would be "knowing where a speaker has shifted the degree of 'activeness' (or metaphoricity) of an expression" (say a technical term), or "knowing when a speaker has gone beyond conventionality and is being mildly creative – or else is operating on an *ad hoc* basis" (e.g. Carter & McCarthy, 2004; Low, 1988). Because these discourse-related skills rely so heavily on the use of social context, linguistic co-text, and one's expertise in the relevant topic, they are generally compatible with recent

approaches to task-based teaching, as long as teachers bear in mind that they are relevant in one form or another to just about every real-world language-use task. People can activate and deactivate metaphor in everything from buying a loaf of bread to writing an academic journal article.

An alternative approach is to isolate a small set of psychological skills which are either held to underlie a broad range of actual metaphor performance, or which are indirectly related to performance and serve more as predictors (e.g. Littlemore, 2001a; Pollio & Smith, 1980). Unfortunately, it remains to be shown experimentally whether interventions (i.e. teaching) focusing on, say, lateral thinking skills do serve to improve the accuracy, the rhetorical/interactive power, or the appropriateness of spontaneous L2 performance – as tested by a delayed post-test comprising free construction test items.

A third approach is to formulate metaphor skills so that they fit into existing models of communicative competence. The model currently commonest among language teachers and testers treats communicative competence as comprising four orthogonal components: linguistic, sociolinguistic (meaning contextual appropriateness), discourse, and strategic. The latter is somewhat ambiguous as it can imply learning strategies, communication strategies, or both. The model has developed over a number of years, starting with Canale and Swain (1980), revised by Bachman (1990), by Bachman and Palmer (1996), and more recently by Douglas (2000). Although Skehan (1998) has criticised the general concept of a componential model of competence as being descriptive rather than explanatory, it has had the merit of helping course designers and language testers build relatively comprehensive profiles and needs analyses. This has also in practice served to limit the interest in metaphor. Bachman (1990) treated metaphor as involving oblique cultural references and an activity which only advanced learners could be expected to do. It can be shown without much difficulty (Littlemore & Low, 2006) first that metaphor skills apply to all four components (and thus need to be acquired by learners at most levels) and second that learners do in fact experience difficulty working with metaphor in all four areas.

Clearly, the way metaphoric competence is formulated will depend very much on the purpose of the formulator, and there is no one best solution. From a teaching perspective, it is important to highlight the point that learning *about* metaphor – learning, for example, that "run up a flag", "run up a bill", or "the run up to an election" are metaphoric, or knowing that LOVE IS A JOURNEY has numerous exponents in English – will not *per se* improve your ability to *use* metaphoric expressions effectively as a speaker. Nor will it necessarily help you compute implicit and explicit messages on line as a listener.

I would thus endorse the value of the first of the three approaches above and, with this in mind, I shall list some of the things language learners need to do, but which they are rarely taught or exposed to in a classroom. Productively, speakers need to know how to use non-specific metaphor to "decouple" from a narrative or conversational topic, in order to summarise it, evaluate it, withdraw gracefully from the argument, or simply change topic. Receptively, listeners need to be able to pick up on the previous speaker's metaphor, use their knowledge of the target culture and discourse practices to guess what the speaker is implying, and choose to "run with" the metaphor, extend it, or even close it down. They need moreover to be aware of the implications of the strategy they themselves adopt. They need to recognise where style jumps take place, where speakers and writers stop being metaphoric. They need to recognise where the speaker is extending or elaborating beyond conventional language and why – are they being friendly, humorous, sarcastic, or even addressing a third party? Learners need to recognise where the speaker is avoiding a topic, or refusing to take responsibility (Lerman, 1983). Lastly, they need to recognise when texts or speakers are operating simultaneously on multiple levels (as in many, possibly most, jokes, advertisements, and banter) and to establish

what effects and messages are being hinted at on each level. We might also note that the effect of an advertisement may well rely on the reader slowly accessing different meanings in real time and that the sequence may well *not* be from less metaphoric to more metaphoric: much will depend on the contextual clues provided by the accompanying pictures, text, and even graphic layout.

It will be apparent that the above list emphasises receptive skills over productive skills. The reason is simply that all listeners and readers need to cope with "incoming" L2 metaphor, whereas speakers and writers can choose whether and when they use it. What will determine that choice in actual practice remains relatively unresearched, but the list may include existing L1 preferences, as well as the learner's "identity" as a second language user – whether they choose to be the sort of person that uses a lot of L2 metaphor. Although the question of L2 identity has been a topic of discussion for some years in the applied linguistic literature, little or none of the discussion has revolved around metaphor and we currently have little idea whether learners transfer metaphor preferences across languages, or construct preferences anew as they acquire an L2.

The Canale/Swain/Bachman model of communicative competence has been widely used as a basis for designing language tests and this raises the question of how metaphoric competence can best be tested. Specific teaching interventions will require tests of the content or skills involved, like any other achievement test (as in the case of Littlemore 2001). Far more interesting is how metaphoric competence could be tested as part of general L2 proficiency. I noted earlier that forced-choice and even constrained-response tests have been shown to overestimate learning in key areas of language (Norris & Ortega, 2000; Truscott, 1998), so we might assume that metaphoric competence is best tested by some form of free-response direct communicative test. There have been to date very few attempts to generate an overall measure of L2

metaphoric competence. One recent exception is Azuma (2003), who paired a test of interpreting metaphors in running text with a test which required learners to use specific target metaphors in a free writing exercise. However, even here, no attempt was made to distinguish or assess the sort of discourse control skills mentioned earlier and the primary interest was examining how the test related to vocabulary knowledge.

Accurately measuring metaphoric competence, especially productively, is not going to be easy, largely because the use of active/deliberate metaphor is usually optional, and almost every discourse task can be achieved perfectly adequately without it. On the other hand, we are now beginning to obtain reliable estimates of the average frequency of metaphor in native-speaker texts of various types (e.g. Koller, 2003; Cameron, 2003a; Cameron & Stelma, 2004), so these could perhaps be used in future to give rough estimates of over and underuse. Such estimates would however need to be judged against baseline L1 data of individual preferences. However, not only is it rare for language proficiency tests of any sort to modify their scores with reference to desired L2 identity, but we are, as I noted above, some way away from linking individual metaphor-use preferences and L2 metaphor use, so there is little in the way of precedent in the research literature.

In short, we still do not know exactly how we would expect L2 learners to differ in terms of metaphoric competence. We do, however, know that cultural background plays an important part in metaphor interpretation. Littlemore (2001) found that a group of Bangladeshi civil servants misread the evaluative content of a UK lecture on government, because they expected that "speakers in authority would not criticise their own government". She also noted (2003) that students from a culture that is less tolerant of uncertainty found it difficult to grasp a lecturer's contention that "freeing up the economy" is a good idea. It has been repeatedly found that learners interpret the L2 through the "lens" of their L1 (e.g. Kellerman, 1986, 2001;

Sakuragi & Fuller, 2003), but if this is the case, it is hard to see how one single proficiency test battery could realistically be used as a universal measure of metaphoric competence.

If an Expression *Involves* Metaphor, Do We Teach It *as* Metaphor?

Thus far, I have noted that identifying a metaphor may not be simple or straightforward, but in general, when something has been identified as metaphoric, the assumption has been made that it should be treated as such by the teacher and the learner. It is, however, important to recognise that this is no more than an assumption and its validity is worth exploring.

Vocabulary would appear to be the area most conducive to teaching items *as* metaphor in the language classroom, but even in this context, the need for a complex metalanguage rapidly arises. The teacher needs, for example, to have some way of explaining that another item or sense is somehow "less metaphoric", or "not metaphoric at all", or even "metonymic". Metaphors are also frequently iterative, in the sense that they will use an earlier metaphor as input (i.e. as Source), so it is not enough to explain metaphor as a simple link between a literal and a figurative sense. Thus, if "in the running for president" is explained as a transfer from horse racing (Deignan, 2003), "in the running" is still not transparent, largely because it is already metaphoric (*and* metonymic) in the racing context. It is also hard in many cases to talk cross-culturally about metaphor without reference to metonymy. There are numerous examples in the literature (e.g. Yu, 2003, on differences between English and Chinese), but Charteris-Black (2003) makes the point particularly starkly in his study of figurative uses of English and Malay oral body parts where he sees the key difference between his two data sets as the "tendency in English to metonymy and hyperbole and in Malay to metaphor and euphemism" (p. 306). The question thus arises of how much metalanguage to introduce and whether all learners can cope with it.

There is some indirect evidence on the question of age. It is commonly accepted that young children demonstrate a preference for thinking metonymically before they think metaphorically (e.g. Winner, 1988) and this has recently been found to be the case for young L2 learners (Piquer, 2003, 2004), so figurative metalanguage would not seem generally usable below the age of around eight years. Even with adults, it is no easy task to arrive at a meaningful understanding of terms like "literal" with language learners who are not budding linguists. I have seen no published language teaching (or indeed science teaching, it should be added) materials that even begin to approach this topic. I conclude that it may well be desirable to avoid metalanguage unless it is clear that the learners can cope with it.

There are in fact numerous points where one has to wonder whether it is preferable to teach items "literally", as simply as "having a certain meaning". It has been argued, for example, that the "quotative" use of "like" in "I was like 'it's great'" developed with a metaphorical component (Buchstaller, 2001a, 2001b) and it could certainly be taught using a Boers-type set of sentences involving a cline of metaphoricity, starting from the "literal" comparison "A chair is like a sofa". However, the metaphoric component in quotative "like" is not transparent, the word would not be identified as metaphoric, or potentially metaphoric, using, say the Pragglejaz criteria (see Steen, 2005), and it is easy to teach it without any reference to metaphor.[4] Similar arguments may be made for teaching delexical verbs; little would seem to be gained pedagogically by hunting for metaphoric support for saying, "make an error" and "do an exam" rather than "do an error" and "make an exam".

A rather different situation is represented by the common use of the term "literally" to mean "metaphorically" (as in "She literally hit the roof when I told her"). The word is probably more obviously "metaphoric" than "like", but this time the metaphoricity is highly complex, involving an

interaction between several different underlying metaphors and nonmetaphoric propositions. While intermediate learners can easily be taught to use the word accurately and effectively in their discourse, any attempt to explain the nature of the metaphoricity is likely to be met with incomprehension and confusion.

Though it is becoming popular to argue that prepositions and particles should be taught by bringing the nature or degree of the metaphoricity to the learners' attention (Boers, 2000; Dirven, 2001; Lindstromberg, 1996), I want to argue for a degree of caution and to suggest that the older, naïver direct method approach might just work more effectively in many cases. Most prepositions show very complex semantic structure, and we frequently do not understand what motivates certain senses (see Dirven, 2001). Teaching all of them cognitively becomes a highly complex and time-consuming task, with no guarantee that the learner will (a) understand the concepts involved, (b) understand the sense of the expression itself, or (c) actually use the expression in real discourse.

One particular area of interest in this connection is the language of classroom or learning management. Huge amounts of the lexis are highly metaphoric (e.g. "go through homework", "go over it", "run though a text", "run over it", "look through it", "look over it", "look at a topic", "skip over something", "skip through it", "pass over it", "home in on it", "touch on it"; "work through it"; "work on it"; "work at it, then rework it"). Classroom/learning management represents one of the few genuinely communicative uses of language in formal teaching situations and therefore large amounts of it need to be learned and used by teachers and learners. To some degree, the semantic similarity of the movement verbs and of the dynamic particles in "run over" and "go through" can be relatively easily explained using visual images of a sheet of paper and an arrow. But the complexity of distinguishing the radical difference between "pass over a topic" and "go over a topic" would appear to be far too much for young learners. Somehow, a dis-

tinction needs to be made, but as yet we have no real criteria for making that judgement.

Should We Teach Basic Meanings First?

One might assume that metaphor would be cognitively easier to learn if the "literal" or "basic" meaning is acquired first, particularly as this is often a familiar human activity or closely connected with the human body. When applied to an instructional context, however, the argument that abstractions and extensions can best be taught by first teaching basic meanings has several practical difficulties, especially where conventional metaphor is involved.

First, the basic sense may well be a much rarer word, possibly representing archaic technology that the learner may never need to use (Low, 1988). Deignan (2003) quotes the example of horse metaphors in English; while literal "horse" occurs in contexts of leisure, metaphors involving horses refer almost totally to transport or heavy work. The rarity situation arises in several ESP contexts (e.g. to *buttress* an argument) but is also evident in general English, with words like "arrow" or "cursor".

Second, the "basic sense first" requirement assumes that we can in fact agree on what exactly is logically more basic. For example, the particle "on" is sometimes explained as having two basic senses (position and movement forward) both of which can be traced back hundreds of years (Lindstromberg, 1998). On the other hand, it is not hard to create a simple derivation of one from the other. What should the teacher do? And does it really matter?

A third difficulty is that the metaphorical expression may need to be used by the learner early on, before the literal sense. "Buttress" (above) is an example of this, but so is much classroom management language ("*skip* that bit"), or greetings ("I'm *called* Fred", "*How's* life", "*How* are you?" "*Cheers*"), or personal descriptions ("I live *in* Bristol", "Tell me *about* your brother"). The basic-first requirement is essentially

unrealistic here and runs counter to communicative, or particularly task-based learning, principles.

Fourth, the basic-first requirement assumes a linear, cumulative approach to learning, which is simply not true for language, whether first or second. This is tantamount to saying: Lessons 1 to 5 use present tenses, Lessons 6 and 7 the present progressive, and Lesson 8 regular past tenses. However, we know that learners make heavy use of formulae which they analyse as learning develops and interlanguage restructures (see Wray, 2000, 2002). Thus, as Low and Lau argued strongly as far back as 1983, teaching should create unanalysed reference points or reference expressions, which represent points of known sense and use, to which learners can refer when learning becomes more complex or to which they can step back to when confused and the interlanguage is undergoing reconstruction.

The Importance of Culture

I would like to return briefly to the notion of culture in language and language teaching. If L2 metaphor genuinely reflects L2 culture, should salient aspects of that culture be taught before the linguistic exponents, so that the words would have a genuine meaning for the learners? There are a number of problems here that researchers have raised but which are rarely considered in the educational literature. For example, if so many animal-related metaphors relate to an agricultural, pre-industrial society, where speakers might actually have some direct experience of animals (e.g. "to hare off", "an old hen", "a sow's ear"), should we initially teach a vision of Jane Austen's England? If anger metaphors show a line of technological development from "letting off steam" to "blowing a fuse" and "blowing a gasket", do we first teach the history of technology? If so many emotion metaphors in English derive from the old medical approach to the humours, do we teach that? If English is full of metaphors of the sea and naval battles,

do we teach a politically right-wing vision of England as a besieged island community preserving its individual national identity? There is no clear or universal answer to this question. There is possibly a good reason to teach learners about gardening, as England is full of gardening centres, the airwaves are full of gardening programmes, and the English in general spend much time caring for minute patches of ground. On the other hand, gardening is not terribly motivating to adolescent learners even in England and, more importantly, we need to have some understanding of how contemporary native speakers feel about these metaphors – something which can in part be established, as Stubbs (2001) noted, by exploring the frequencies and collocations of literal uses of "horse", "fuse", or "garden" in contemporary corpora, but which really also needs supporting data from interviews and reaction studies.

Deignan (2003) notes that metaphors involving culture frequently involve generalised, or prototypical cultural situations. Apart from the important teaching implication that many of these can be expressed as images, or image schemata, which could be taught in terms of pictorial reference points (Constable's "Haywain" on every classroom wall?), it raises the key question of how far using a metaphor becomes a statement of "buying in" to a culture and/or belief in the patterns underlying the lexis. This was noted as a serious point where teachers are accused of being professionally incompetent if the fact of their using, say, the conduit metaphor is held to reflect a belief that this is how communication works. People use conventional expressions because they exist and are used, not because they believe them. Only when pressure is exerted to use, for example, "chair" or "chairperson" do people stop and think about possible implications of (here) "chairman". Language teachers somehow need to find a balance between teaching learners to have gut reactions about metaphor and teaching highly inaccurate models of second language culture. They also need to take on board the question of variation and limitation on productive use

of prototypes; does *everyone* say, "It's not my cup of tea"? Do coffee drinkers? Younger speakers? Working class speakers? Speakers from minority communities? and when they do use it, is it used "seriously", or tongue in cheek and humorously? Moreover, can it be abbreviated? Most proverbs can, but I have seen no example of "not my cup". These considerations are central to the interpretation of a metaphor in context and to the learner's selection of a voice or persona – the L2 person that they elect to become.

Conclusion

Metaphor has been used from time immemorial to facilitate education, and research has begun to indicate why it has proved so enduringly successful. While endorsing its usefulness in expanding the mind, developing critical thinking, encouraging problem finding, and in aiding categorisation and memorisation, I have tried in this chapter to suggest that this is a good point to stop for a moment and reflect. I have suggested, in the context of planning and evaluating educational change, that metaphoric modelling needs to be thought out carefully and the role of metonymy in particular resolved. I have also suggested that applications of cognitive theories of metaphor to language teaching should not be indiscriminate and should go hand-in-hand with research into alternative methods of teaching metaphor and more comprehensive thought about the metaphoric skills we want learners to acquire, especially at discourse level. To this end, I have tried to sound a cautionary note about using metalanguage with learners and assuming that metaphor is easily identifiable. I have also argued that testing metaphor skills within the construct of general language proficiency presents very different problems from testing metaphor for specific research projects and remains essentially unknown and unexplored territory. The potential for exciting and dynamic teaching of metaphor is enormous, but

there is still a lot of development work to do.

This brings me to the final section: directions for future research and development. The impact of metaphor and analogy in science teaching has been researched for several years, but metaphor remains a relatively new topic for foreign language teaching. Developing the arguments in this chapter slightly, I want to suggest five key research directions for the start of the 21st century:

1. Much of the evidence described in this chapter for success with direct training in cognitive ideas and metalanguage remains purely suggestive, as it has come from studies involving small samples, advanced learners, and a lack of delayed post-tests. Again, while data have been analysed for significance, effect sizes have not been calculated. What is needed now are studies with larger, mixed-level samples, delayed post-tests and where effect sizes are reported.

2. It is as important that these larger-scale studies test the claim that *indirect* instruction increases learning (e.g. Littlemore's, 2004, study of the impact of metaphor training on critical thinking), as it is that they test the claim (e.g. Boers, 2000) that *direct* teaching aids retention.

3. Further research is also needed into a variety of methods and techniques of teaching metaphor: not just total physical response, but the varied application of visual, tactile, and behavioural support (possibly exploring synaesthesia), as well as the use of contextual factors like more-less metaphoric style jumps (as suggested in Low, 1988).

4. The instructional research needs to go hand-in-hand with innovative attempts to develop innovative metaphor teaching materials and to integrate metaphor teaching, at *both* semantic and pragmatic levels, into learning tasks and activities. The materials and lesson plans in Lazar (2003) and (at the time of writing) the OneStop English Internet site are a very valuable start, but they tend to focus on just semantics/lexis and to be stand-alone exercises, rather than integrated into broader instructional programmes.

5. Recent attempts to measure learner command of idiomatic and formulaic sequences (e.g. Schmitt, 2004) could be modified to test certain aspects of metaphoric competence, but innovative research is needed to establish just how metaphoric competence dovetails with general language competence and to find a way of testing proficiency, particularly with regard to the 'productive' skills of reading and writing.

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Notes

1 Readers interested in a broad canvas can consult Ortony (1999, "Metaphor and Education" section) or Cameron and Low (1999).

2 I include extended A IS B expressions, such as "Lava is like runny butter" (from Cameron 2003a), where a third concept C is added, to denote a constraint or (as here) the Ground.

3 It is of interest to note a degree of circularity here; metaphors are suited to holistic language teaching, but holistic language teaching relies heavily on the use of metaphors. A quick check of the index to Stevick's (1980) classic *Teaching Languages: A Way and Ways* reveals 12 Sources labelled as metaphor (e.g. "ferry", "mask", "pebble", "spark plug"), three labelled as analogies ("evangelism", "music" and "swimming"), and at least nine others classable as metaphor (e.g. "mask change", "soothing syrup").

4 At the time of this writing, the initial paper describing the Pragglejaz guidelines were being constructed. Steen (2005) is simply an explanatory overview.

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