



## Language and Meaning: How We Learn

### *Words and images*

This is a programme from the Open University in the UK. It forms part of the new Masters level module, E852, called Language, literacy and learning in the contemporary world. This module is part of our Masters in Education (Applied Linguistics).

This programme is about multimodality in different kinds of texts. Multimodality means the use of different forms of communication, or modes, such as words, images, layout and sound, in a single text. So an example would be a website, where we find pictures alongside words, and possibly videos and audio files as well. Or a page in an illustrated book. Or a film, where obviously we've lots of different sounds accompanying the visuals. All these texts – and actually, probably all texts – are multimodal.

I'm going to show you some of the ways in which different modes of communication can be used to create meanings in multimodal texts.

We're surrounded by multimodal texts in all aspects of our lives.

The study of these different textual elements - what they mean on their own, what they mean in combination, and sometimes how they clash with each other and seem to mean different things entirely – is called multimodal analysis. So we'll be looking at how we make sense of these texts – how they're put together, how we engage with them, and finally I'll show you some tools that you can use yourself for analysing them.

As teachers, whether in informal contexts or in educational settings, you all use multimodal texts – but perhaps you've never really thought about them in this light before. This programme will help you to identify and reflect upon the multimodal texts that you and your students use and produce, and how you can use multimodality with your students to interpret and design learning resources, including digital tools.

Multimodality researchers are interested in many different things. Some look at how teachers use books, whiteboards, drawings, and facial and other gestures, and body movement to teach their classes effectively.

Some are concerned with how advertisements use images and sounds to persuade us to buy, or to buy into an aspirational lifestyle which will – the advertisers hope – create a desire for their products.

Some look at how images, words and visual design work together in childrens' books, or in illustrated adult books or textbooks.

Some are interested in online virtual worlds, or in websites and how we engage with them.

Others are interested in how children use words and images when they learn to write, draw and communicate, and in how cultural assumptions are often embedded in these emerging literacies.

Multimodal analysis helps us to understand how meanings are made not just through words but through multiple modes.

So that's what this programme is about – texts which don't just use words to tell us things, but bring in other elements – other semiotic modes - to create their meanings.

Multimodality isn't new, of course. It's been around since the dawn of civilisation. People have always gestured, smiled, and grimaced at each other. They've always made sounds, and they've always drawn pictures as a way to communicate and exchange knowledge – think of

early cave paintings ...

...illuminated manuscripts ....

...or the Bayeux Tapestry... a medieval embroidery depicting the Norman Conquest of England in 1066.

But in linguistics and in education, nobody really started studying how modes work together dynamically until fairly recently – over the last two decades or so. Before that, people tended to assume that the ‘primary’ meanings lay in the words, and any additional modes, such as pictures, were secondary.

Or people studied individual modes in isolation, focussing on gesture or gaze, but not really looking at how different modes work together to create meaning.

Traditional textbooks tended to rely almost exclusively on the printed word to convey their meaning. Generally speaking, the information - the points that demanded your attention, and which you would be tested on - were presented in words. Verbal language was usually considered to be the information carrier.

If there were any illustrations at all, these usually played a ‘supporting role’, for example to clarify the verbal message through line drawings, diagrams or photographs.

So the words and images gave you complementary information, but the words were considered to contain the main message you were supposed to attend to. Books and textbooks like this still exist, of course. But some publishers have in more recent times been concerned with making their books as engaging and enticing as possible, and educational books are no exception.

Here’s a page from a series of books designed to introduce the work of some of the world’s great thinkers and theorists – this one is about Charles Darwin. Take a look now and think about how the different modes of word, image and layout work together in this text.

<pause> – to discuss with Owen how to break this up for ease of reading

In English language texts, we’re accustomed to starting the page at the top left. We then read each line in turn, from left to right, and from top to bottom. This is called a reading path – and not all languages are the same, of course.

At first glance, the linearity which is so apparent in the older-fashioned examples you’ve just looked at, seems to be disrupted here. Perhaps this page has multiple entry points, and we can start reading it wherever we like?

<pause>

But the more closely you look at this, the more you’ll see that, actually, we still need to read it in the traditional way. We still need to start at the top left, as that’s where the heading, Facts in favour of evolution before Darwin, is located, and we need this information to orient us to what’s coming. And while we may well glance over other parts of the double page spread in whatever order we like, we’re brought back to the top left in order to make sense of it, and we’re probably going to read in a reasonably linear way, and from left to right. So the left to right and top to bottom reading path is still there, and positions us, as readers, to follow, and interpret the text in a particular way.

Why might the authors of this text have designed it in this way? They’ve tried to match the meanings they want to make with the most apt way of getting those meanings across to their target audience. Specifically, they’ve split the information they want to convey into different modes of communication, using images, layout, printed words and different typefaces. All the texts we make are subject to these kinds of decisions – we produce things that look like they do according to what is often called our “interest” – our purpose in creating the text, our notions of who we think will read the text and our relationship with those people. In this way, text design can be seen as a rhetorical device.

So the fact that this text appropriates the cartoon format, for example, is a question of multimodal design. The students of this book are assumed to be familiar with cartoons, and the book uses this more informal format to explain quite complicated scientific and historical ideas, in a way that’s assumed to be less intimidating, and therefore more accessible and engaging, than by making students read the primary texts or historical documents.

It's interesting to think here about which mode has been chosen for which job, and why. Pause here and think about how the mode of written language is used in this text.

<pause>

The main scientific arguments are presented verbally in the printed paragraphs: the first paragraph introduces the main problem; the second paragraph, in bold typeface, serves as a title for the courtroom illustrations and it introduces a historical time frame.

The third and fourth paragraphs develop the scientific arguments, but with informal language, such as 'anyway', which sets a relaxed interpersonal tone. In the speech bubbles, a different typeface has been chosen that looks like handwriting. Here, the main arguments for and against evolution are given, along with some examples. These speech bubbles "bring the text to life" for us – what was said by the people here could easily have been presented in good old-fashioned paragraphs, but the speech bubbles help place us in the courtroom - as events unfold - as if we were actually there listening to the proceedings.

Pause again here, and think about the visuals on this page. What meanings do they convey?

<pause>

We pick up that Darwin's ideas were controversial at the time, because we're shown "witnesses" in what looks like a courtroom, and these witnesses are set apart from those questioning them by the seating arrangements and the metal bar. One of the main arguments for the theory of evolution is given in an image top left, as 'Exhibit A'. That is, it is presented as a crucial piece of evidence that threatened the widely held belief in divine creation.

The images of the courtroom are done as line-drawings, which seems appropriate for Darwin's 19th century setting. And we know how long and serious the deliberations must have been, by comparing the two clocks – information we're not given in the words. You may well have noticed different things here, and that's fine.

There are gains and losses in this kind of text - they may be more dynamic and appealing to readers, but some have argued that they can be distracting and confusing for students. What do you think?

Cartoons are not just for children, as we've seen, and nor do they always simplify things. It would be a mistake to think that using the visual mode to tell a story automatically makes things easier for us. Often the exact opposite is true, with images complicating the text and how we read it. To show you something of how this works, we'll take a look at children's books.

Here's a page from a new version of a very old fairy tale. It's called Hansel and Gretel. Don't worry if you're not familiar with this particular fairy tale.

If you just read the words, there's nothing particularly remarkable about it. It's a well-trodden path into the story – and the forest – by the two hapless children, one of whom will eventually end up as Almost Witch Dinner – unless fate or his sister dramatically intervenes. So far, so normal.

But here's the facing page.

Pause the podcast here and study the image – can you spot any hints at the narrative to come, that the illustrator is making?

<pause>

This is a very different text to the Darwin example. There's no obvious top left entry point, and no clear reading path through it. If you're anything like me, your eye was probably drawn somewhere to the centre of the image first. The mode of image here, used as it is without any words, has different affordances and constraints. The reader has to infer what is going on from the visual information alone. And visual design guides the reader. For example in this image, the woman's gaze is central on the page, and is directed downwards, towards the children she is standing over. The focus of her gaze draws an imaginary line that directs the reader's attention to the main activity in the image – the children sleeping. Imaginary lines that show the direction of gaze or action are how processes are represented in two-dimensional images, and are referred to as 'vectors'.

Unlike the Darwin text we just studied, there are no words on this page, so the reader has to infer what is going on from the visual information alone. And there's plenty of information available to us.

You could say quite legitimately that the picture shows us the same thing as the words on the facing page. You could. A woman, leaning over the still-sleeping children, telling them to get out of bed ... Except, of course, the picture is doing so much more than that.

In terms of design, then, what is the author (or illustrator, of course) conveying to us, and how is this achieved? You could point to any, or all of the following:

- the use of colour: there is a lot of black, here, and it's used to link the pictorial elements. It creates equivalences in our mind.
- the vectors that show the processes or narrative of the action (the woman's gaze) and the strong vertical lines that make up the shape of the wardrobe and replicate the shape of a book, and the diagonal lines which make a series of witch's hats;
- the placing of elements higher and lower down the page: the woman's position, higher than, and looking down on, the children, reflects the very real power differential in the story. Adults have power over children, but evil also has power over good, at least for now.
- the placing of elements on the left and the right. Often we find what we call Given information on the left, and New information on the right, just as we do in sentences. I'll say more about this later. Here, a homely dressing gown appears on the left, and a pair of women's red party shoes on the right – perhaps a hint of the glamour that the seemingly cosy mother seeks? In the reflection in the mirror itself, the shadow of the witch is on the left, and the stepmother is on the right.

[picture stays up]

My interpretation may not be the same as yours. You may disagree; you may see something else entirely, because different readers interpret all texts in slightly different ways. But that's part of the fun of children's picturebooks like this. We all see it differently. Children too may see different things to adults, and may see something else again if they return to the book another day, as they often do.

What I see, is a carefully constructed, although not immediately obvious, sense of foreboding in this image. It's done by showing us very cleverly – right at the beginning of the story - that the children's stepmother is a witch. And I don't remember that being clear to me in other versions I used to read, and certainly not right at the beginning of the story. I don't think I need to spell this out, but I can see at least 4 witch's hats, and a lot of dark colours and shapes repeated to reinforce it, and there's something about that wardrobe, and the mirror ... So not only is the picture doing a different job to the words, and doing it in a different way – it's actually telling part of the story. It's providing us with meaning, with information that the words are not. It's a narrative element, and if we ignore it, or relegate this picture to the

realms of pretty illustration, we miss out on a lot of information we're going to need, and which has been provided to us by the author or illustrator (in the case of this book, they're the same person, but of course it's not necessarily so). And it's true to say that the children who encounter these kinds of multimodal texts, may produce their own in turn.

In this piece of primary school work, do you think the mode of image or the mode of words dominates?

It might be more accurate to say that here, the mode of image and the mode of words are interdependent. Take one away, and you will have great difficulty understanding the whole.

So both modes are held in balance and are needed here, for the text to work. In this text, like the others we have looked at, meanings are created in what is called a multimodal ensemble. Like an orchestra is made up of different instruments, so most texts are made up of different modes, and each mode contributes meaning differently to the 'ensemble'. The reading path, however, is interesting. It breaks the traditional left to right format, and places the New information – the jacket and the magnet – on the left. We'd normally expect the bike – the Given - to come first, on the left, and then the innovations – the jacket and the magnet - on the right. But this child has presented it differently – perhaps because his focus is on his own innovations, so they must come first and be attended to first?

<pause>

So far we've looked at books and how they have changed, but other things have changed too. A great deal of communication now happens on digital screens, and these are evolving very quickly. Computers have moved on a long way from their early DOS prompts where typed commands were needed to make them do anything, they've shifted towards the visual, and this trend is bound to increase as the use of hand-held devices becomes even more prevalent.

Everyone's familiar with links on websites and we click through them to get to where we want to go, without a second thought. But we're doing something slightly different than we do when we read a book. Unless the website is highly constrained in what it allows us to do (and some are) we're often constructing our own, individual, pathway through the material. We make our own choices as to what to read, what to watch, what to listen to, and when, and in what order.

Multimodality offers a way to begin to analyse and theorise these profound changes in communication. To show you how, I'll now talk you through one way of analysing a familiar webpage...

<pause>

This page invites you to download and install the Firefox internet browser. The pitch is made with the large white headline and the command expressed as an imperative, Meet the World's Best Browser, and claims to the strengths of the product appear directly underneath. Thinking about how we have just analysed authors' and illustrators' uses of different modes in books, take a moment to consider how this page utilises:

The Reading path: The large main headline on this page presupposes the left to right reading path. If we start higher up the page, which we well might, we'll find our reading anchored by "Mozilla Europe", which also serves the interest of the text producers, in terms of what they are trying to achieve.

Given/New information: This one's quite interesting. The space for the Given information, the left-hand side, contains the white headline and the Firefox download buttons. Many advertisements do this differently – putting the problem or "need" you have in the Given space, and the solution (their product) on the right, in the New space. Here, Firefox is

assumed to be a given, but if you have any problems or need further information, this is presented in a list of links for you on the right.

Modes: words, images, colour and layout – how are these used differently to create meanings? What ‘affordances’ does each mode have, that is, what does each mode allow the producer to do?

On this webpage, the eye is naturally drawn to the Firefox icon with its bold colours. The white headline suggests an ideal, perhaps even heavenly browser option that sits high above the clouds in a blue summer sky. Many advertisements put this kind of ideal information at the top, and the real, down-to-earth information at the bottom.

Colour is used selectively so our eye is directed towards the bright and contrasting orange and blue of the download buttons, and away from the background. Mozilla has chosen not to use icons or other visual images for the list on the right hand side (such as Features, and Security). Perhaps this would distract us away from the download button, which needs to remain the firm focus here.

There are few words on this page, and they’re used sparingly. Colour is used purposefully, for example, to portray the Firefox brand as clean and clear (in white typeface) or as potent (in red typeface). The words ‘Free download’ are presented in green – a colour which has come to mean ‘go’ in modern society. The remaining on-screen words are quite small, clearly visible but unobtrusive and functional as they indicate tabs and links to further information.

Typefaces (or fonts) tend to sit on the boundary between word and image – they can be changed or played around with for a variety of reasons, including emphasis, drawing the eye, separating parts of information with one status from those with another, and so on.

Medium: how is the medium of the computer screen used, and how does this differ from a printed book?

The major – and pretty obvious – affordance of the medium of the computer screen is that it can present the viewer with links, allowing us to follow those that interest us, rather than cramming all the possible information onto one page, or sequential pages. This in turn allows for a clearer, less cluttered page which may engage readers more successfully.

Multimodality researchers often look at texts in terms of what’s called social semiotics, and focus on three over-arching aspects of the text:

Ideational meaning is structured through verbal and visual modes. The main message here is that Firefox is the world’s best browser, and this is conveyed through the words in white, and the strong images of the Firefox icon with its fox – a creature of high intelligence - wrapped around the globe.

Interpersonal meaning – here, the verbal and visual resources also construct the relationships between viewers and what is being viewed – for example the use of colour and uncluttered design offer the user the promise of a clean and simple solution to their browsing.

Textual meaning refers to how the composition of this text shows how information is distributed via words, image, colour and layout. So, for example, on this screen as on so many others, the visual mode dominates and writing is subordinate to image and layout. Users can negotiate their way through this screen without reading the words – unless they want different information, or hit a download problem, when they might use the list of hyperlinks to access other, related sites.

This page is unlike most printed adverts, in that it doesn’t show us images of beautiful landscapes or cuddly baby animals to induce us. Our attention is drawn mainly by the bright, large, colours of the product branding and the download buttons. You could try visiting some other websites and see how they’re done differently.

So a website designer tries to direct our attention in particular ways and to guide our actions on the webpage. But we’re not always going to comply, as we may have a different agenda. Nor can a web designer control how we look at the page, because while we can’t do much to the page itself, we can change – sometimes quite dramatically – how we choose to look at it. Maybe we’ll resize it, or collapse it to view side by side with another. Maybe we’ll change the colour scheme on our browser, so we see the webpage in a different context. Maybe we’ll make a screenshot, scribble all over it with image-editing software and email it to somebody else, changing it in the process. None of this is possible with a book.

So we've looked at how you might begin multimodal analysis of different kinds of printed and on-screen texts. We've looked particularly at the modes of written or printed language, images, colour and layout or design. We've considered how different modes offer different possibilities for meaning making – they have particular affordances. And we've considered how the design of multimodal texts shapes reading pathways, and constructs the ideational, interpersonal and textual meanings of any text.

We take all this for granted, but think back to the traditional book format, and you'll see how enormous the shift from the page to the screen has been. Just look again at this shot of a website, and think about how news is represented on this screen compared to a broadsheet or tabloid newspaper. Think too of the demands these texts make on viewers, something that language and literacy teachers increasingly need to take into account.