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## Visual Meaning: a Social Semiotic Approach

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### INTRODUCTION

Social semiotics of visual communication involves the description of semiotic resources, what can be said and done with images (and other visual means of communication) and how the things people say and do with images can be interpreted.

### Describing semiotic resources

The term 'resource' marks one of the key differences between social semiotics and Paris school structuralist semiotics (see Chapter 4). In Paris school semiotics the key word was 'code', not 'resource'. It conceived of semiotic systems as codes, sets of rules for connecting signs and meanings. Once two or more people have mastered the same code, it was thought, they would be able to connect the same meanings to the same sounds or graphic patterns and hence be able to understand each other. How these codes came about, who made the rules and how and why they might be changed was not considered a key issue.

Some forms of visual communication actually work like this, for instance the highway code, a key example in early Paris school visual semiotics. In other forms of visual communication, for instance children's drawings and many forms of modern art, there are no such codes. Like the highway code they draw from the visual resources which Western culture has developed over the centuries, but the way they use these resources is not subject to the same kinds of rules. The highway code is governed by strict prescriptions, children's drawings and modern art by creative invention, the influence of examples and conventions, and so on. The same applies to the interpretation, the 'take-up' of images. Some viewers interpret 'according to the book' (in educational contexts you usually have to do this if you want to get a good grade), others use whatever resources of interpretation and intertextual connection they can lay their hands on to create their own new interpretations and interconnections.

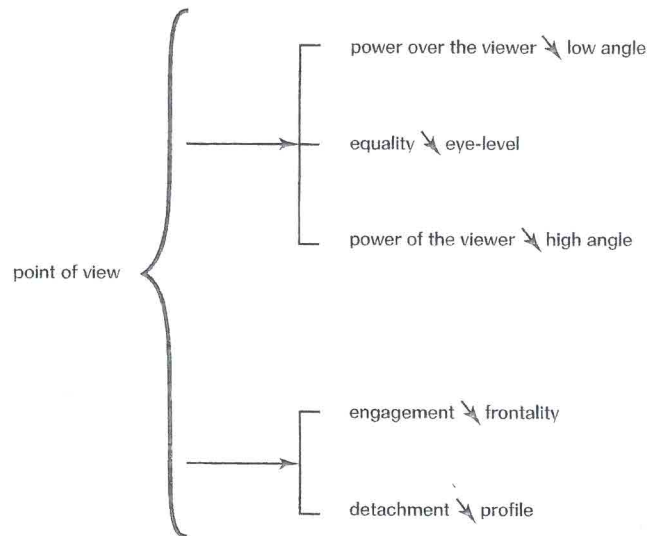
For social semiotics this is a vital point. There are kinds of 'rules', from laws and mandatory prescriptions to 'best practice', the influence of role models, expert advice, common habits, and so on. Different kinds of rules apply in different contexts. As for breaking the rules, only people with a large amount of cultural power are

given permission to do this, at least in public places. Most of us have to conform. In private, in the smaller groups and 'sub-cultures' we live in, we may have more freedom, but our semiotic productions and interpretations are not likely to spread much beyond those small circles. They will remain relatively marginal. Sometimes, however, society needs something new, and then novel modes of production and interpretation will stand more of a chance of being added to the culture's treasury of visual resources.

Let us give an example of such a 'resource', that of 'point of view' (Kress and van Leeuwen, 1996: 135–53) (see Chapters 4 and 9). This resource allows people, places and things to be depicted from above or below (or at eye-level), and from the front, the side or the back. Both these dimensions, the vertical and the horizontal, are graded, a matter of degree. There is, for instance, a range of vertical angles between the 'bird's eye' view and eye-level, and a range of horizontal angles between frontality and the profile. Point of view also creates a meaning potential. This does not mean that it is possible to say what different points of view will mean exactly. But it is possible to describe the kinds of meaning they will allow image producers and viewers to create, in this case, the kinds of symbolic relations between image producers/viewers and the people, places or things in images. In the case of the vertical angle this relation will be one of symbolic power. If you look down on something, you look at it from a position of symbolic power. If you look up at something, that something has some kind of symbolic power over you. At eye-level there is a relation of symbolic equality. In the case of the horizontal angle, the relation will be one of involvement with, or detachment from, what is represented. Frontality allows the creation of maximum involvement. The viewer is directly confronted with what is in the picture. If something is depicted from the side, the viewer literally and figuratively remains on the sidelines. Again, there are of course many degrees of involved or detached engagement in between.

Two points need to be made. First, 'power', 'detachment', 'involvement', and so on, are not 'the' meanings of these angles. They are an attempt to describe a meaning potential, a field of possible meanings, which need to be activated by the producers and viewers of images. But this field of possible meanings is not unlimited. If you want to express that something or someone is impressive and powerful, you are unlikely to choose a high angle, and if you see someone depicted from a high angle, you are unlikely to conclude that he or she is represented as an impressive and powerful person (although it is always possible: sometimes we say the opposite of what we mean and are nevertheless perfectly understood). Secondly, symbolic relations are not real relations, and it is precisely this which makes point of view a semiotic resource. It can 'lie'. Photographs can symbolically make us relate as an equal to people who in fact have very considerable power over our lives (for example, politicians), or it can make us look in a detached way at people who we are involved with (see Chapter 4).

To map out meaning potentials, Kress and van Leeuwen use 'system networks', a style of diagramming that derives from the work of M.A.K. Halliday (1978), whose linguistic theories have been a decisive influence on this kind of visual analysis. The system network below encapsulates the resource of 'point of view' (square brackets mean either/or).



Such resources have histories. They were invented in the context of specific interests and specific purposes. Point of view, as we have described it here, became possible as a result of the invention of perspective in the Renaissance. Before that time pictures were surfaces on which to make marks, and 'the world in the picture was experienced as a direct continuation of the observer's own space' (Arnheim, 1974: 274). After that pictures became 'windows on the world' (Panofsky, 1953) which allowed a particular subjective point of view to be realized – and this happened in a time in which subjectivity and individuality became significant social values. That it happened through a geometric system was one of the paradoxes of the invention. As Kress and van Leeuwen say: 'Socially determined viewpoints could, in this way, be naturalised and presented as studies of nature' (1996: 137). This is another key emphasis of the social semiotic approach: semiotic resources are at once the products of cultural histories and the cognitive resources we use to create meaning in the production and interpretation of visual and other messages.

### Describing and explaining how semiotic resources are used

The second type of semiotic work is describing and explaining how semiotic resources are used in specific domains. Social semiotics is not an end in itself. It is meant as a tool for use in critical research. It only becomes meaningful once we begin to use its resources to ask questions. In this chapter we draw on several studies which apply visual social semiotics. The first is a study exploring the visual representation of male heterosexuality in British sexual health materials aimed at people aged 13 to 19 years old

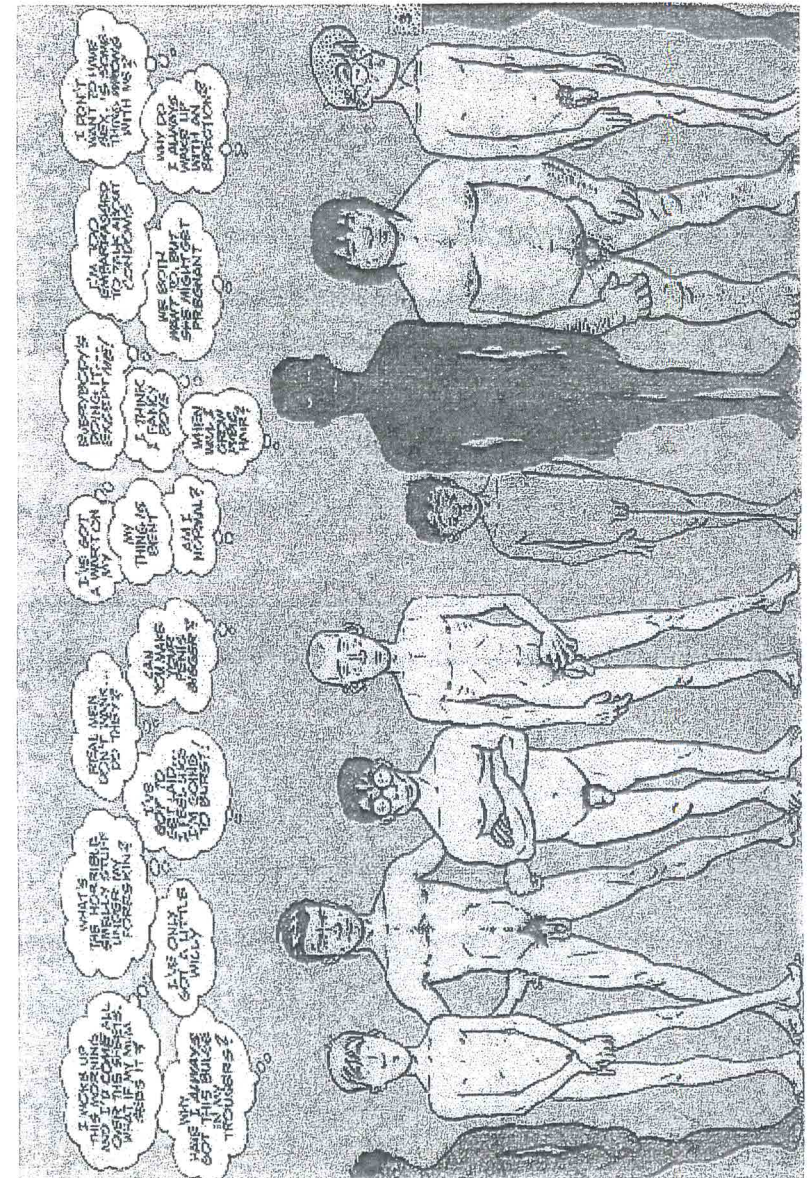


Figure 7.1 'Explore the possibilities' (City and East London Health promotion).

(Jewitt, 1997, 1999). The study revealed that images can reinforce stereotyped forms of masculinity which in words would probably be unacceptable to many sexual health workers and young people. It compiled a detailed and systematic description of these images based on 18 descriptive dimensions developed from Kress and van Leeuwen's social semiotic approach to the analysis of images (Jewitt, 1997). The main dimensions will be described in detail including the form of representation, the setting and the props, the actors' appearance, the composition of each image and the relationship between the represented actors and the viewer (encoded through the use of point of view, distance and contact). These descriptions were entered on to grid-charts (the columns representing the dimensions outlined above, the rows representing each image – a total of 74 images were analysed). The charts were then analysed using the framework process (Ritchie and Spencer, 1994), which identifies the patterns and relationships between and across the descriptions of the images (for example, the relationship between actors and setting) and can therefore be used both to generate ideas and to systematically test the hypothesis which emerged from the literature on masculinity and gender and from preliminary analysis of the images (see Chapter 2).

How was 'point of view' used in this material? To start with the horizontal dimension, the frontal angle was used to increase audience identification and involvement with represented participants who reduce sexual risk. For instance, a frontal angle was used to present the male actor carrying condoms in Figure 7.1, while the woman was presented in profile, at an oblique angle: this use of 'point of view' presents the man as a figure to identify with, and objectifies the woman as the 'other'. The use of frontal angle also related to hegemonic norms of masculinity. Throughout the sample of images the men shown frontally were 'real men', whereas oblique angles were used to depict men who failed to acquire the norms of hegemonic masculinity and therefore should not be identified with. For instance the oblique angle in Figure 7.2 frames the boy on the far right of the image in a way which emphasizes the difference between him and the other boys (all of whom are presented frontally), his 'otherness' being confirmed by his unbalanced posture, 'limp wrist', foppish hair and glasses: he represents 'wimp'. While the other boys in the image are represented as looking at us the boy on the far right is represented as looking away: like the woman in Figure 7.1, he is represented as an object for the viewer to look at rather than engage with. As for the vertical angle, men in the sample were portrayed as powerful by the use of a low vertical angle in particular roles: as fathers, and when they were shown as actively engaged in education, asserting their knowledge, planning sex and being sexually unrestrained (Jewitt, 1997).

In this study visual social semiotics revealed things which were not evident at first sight, and even brought to light contradictions between the verbal and the visual message. But visual social semiotics by itself is not enough. To explain the results of the analysis, the study had to draw on other sources, on social theories of gender and masculinities (Wight, 1992; Holland et al., 1993) and on earlier studies of gender construction in images (Millum, 1975; Graham, 1977; Goffman, 1979). In studies of the use of semiotic resources, visual social semiotics can only ever be one element of an interdisciplinary equation which must also involve relevant theories and histories.



## Expanding semiotic resources

Finally, there is a third contribution semioticians can make. They can also explore how semiotic resources may be expanded so as to allow more options, more tools for the production and interpretation of images and other forms of visual communication. In other words, semiotics can be a tool for design. In the past this was a by-product of semiotics. Semiotics was supposed to be 'the science of signs', and science is supposed to be about 'what is' not about 'what could be' or 'what might be'. Still, just as science can unlock doors to new technical possibilities, so semiotics can unlock doors to new semiotic possibilities, whether in the form of new resources (for example, the study of sexual health leaflets discussed in this chapter informed the production of guidelines on sexual health resources for young men (Jewitt, 1998)) or of new uses of existing resources. In the case of the representation of gender and masculinities, contemporary artists and performers, those practical semioticians, are well ahead of the theorists in this respect.

## SOCIAL SEMIOTIC ANALYSIS OF VISUAL COMMUNICATION

Visual social semiotics is functionalist in the sense that it sees visual resources as having been developed to do specific kinds of semiotic work. It follows Halliday (for example, 1978) in recognizing three main kinds of semiotic work, which are always performed simultaneously. Halliday calls these three kinds of work 'metafunctions', and distinguishes between: the ideational metafunction, the function of creating representations; the inter-personal metafunction, the part language plays in creating interactions between writers and readers or speakers and listeners; and the textual metafunction, which brings together the individual bits of representation-and-interaction into the kind of wholes we recognize as specific kinds of text or communicative event (advertisements, interviews, dinner table conversations, etc.) (see Chapter 9 for discussion of filmic texts). Kress and van Leeuwen (1996) have extended this idea to images, using a slightly different terminology: 'representational' instead of 'ideational'; 'interactive' instead of 'inter-personal'; and 'compositional' instead of 'textual'. Any image, they say, not only represents the world (whether in abstract or concrete ways), but also plays a part in some interaction and, with or without accompanying text, constitutes a recognizable kind of text (a painting, a political poster, a magazine advertisement, etc.). The image of the young black couple in the sports car in Figure 7.1 first of all represents a particular kind of relationship (sexual) in a particular kind of setting (urban street). This is the representational work the photograph does. But the woman's look is not directed at the viewer, while the man's look is, and this shows that the picture also plays a role in an interaction founded on gendered power relations. Through the man's look and gesture (encircling the woman in his arms, the car being an 'extension of his domain'), a health organization asks young men to engage with a discourse of sexual safety. This is the interactive work the picture does. Finally, the layout, the placement and relative salience of picture (for instance, the central position of the condom packet) and text,

and so on, do the compositional work that allows us to recognize the text as a health advertisement.

## REPRESENTATIONAL MEANING

Representational meaning is first of all conveyed by the (abstract or concrete) 'participants' (people, places or things) depicted. For example, in Figure 7.2 the young man on the right signifies 'wimp' because, on the basis of certain visual semantic features (longish hair, submissive pose, averted gaze, glasses, 'limp wrist') we recognize him as belonging to the class of 'wimp'. This is the visual equivalent of lexis, of the vocabulary, and in this respect visual social semiotics has not added much to the work of structuralist semioticians and iconographers (see Chapter 5). Where it has contributed new ideas for the visual analysis of representational meaning is in its emphasis on the 'syntax' of images as a source of representational meaning. In time-based semiotic modes such as language and music, 'syntax' is a matter of sequencing order (for example, word order). In space-based semiotic modes such as images and architecture it is a matter of spatial relationships, of 'where things are' in the semiotic space and of whether or not they are connected through lines, or through visual 'rhymes' of colour, shape, and so on. Such forms of spatial 'syntax' have of course been described before, for instance by art theorists such as Arnheim (1969, 1974, 1982), but for the most part only in formalist and aesthetic terms (or sometimes in terms of psychological theories of perception), not as contributing to representational meaning (see Chapter 6).

Kress and van Leeuwen (1996) describe visual syntactic patterns in terms of their function of relating visual participants to each other in meaningful ways. There are two kinds of pattern. Narrative representations relate participants in terms of 'doings' and 'happenings', of the unfolding of actions, events, or processes of change. Conceptual patterns, represent participants in terms of their more generalized, stable or timeless 'essences'. They do not represent them as doing something, but as being something, or meaning something, or belonging to some category, or having certain characteristics or components. The choice is important, since the decision to represent something in a narrative or conceptual way provides a key to understanding the discourses which mediate their representation.

## Narrative structures

Narrative pictures (or scenes within pictures) are recognized by the presence of a vector. A vector is a line, often diagonal, that connects participants, for instance an arrow connecting boxes in a diagram, or the outstretched arms of the man in a leaflet on sexual health represented in Figure 7.3. The vector expresses a dynamic, 'doing' or 'happening' kind of relation. In the case of Figure 7.3, the syntax suggests something like the following meaning. The man does something to the woman. What that something is may then be filled in differently by different viewers (engage, dominant, argue), but the range of possible interpretations is not unlimited.

In Figure 7.3 the 'actor', the 'doer' of the action is the man. More generally, 'actors' are the participants from whom or which the vector emanates, or who themselves form the vector. Here the vector is formed by the strong downward diagonal vector of the man and woman's arms and their eyeline. The vector is bi-directional (that is, the woman's arms also form a vector which 'acts on' the man). However, the primary 'goal', the participant to whom or which the action is done, is formed by the woman as the upward directionality of the vector depicting her action is more weakly articulated. The woman is represented as involved in 'stopping' his movement forward (echoed in the caption 'If he won't use a condom he needs to be told'). In this image, as in many others in the study, images visually confirmed the role of women as the mediators of sexuality: besieged by predatory male sexuality (here depicted by 'black maleness') and at the same time depicted as able to control male sexuality by the 'threat



Figure 7.3 Sketch of 'If he won't use a condom' (Health Education Authority poster).

of withdrawal'. More generally, 'goals' are the participants at whom the vector is directed. When a picture or a scene within a picture has both an actor and a goal it is 'transactive', representing an action taking place between two parties. But it is also possible to have a picture or scene containing only an actor and a vector.

The eyeline, the direction of the gaze of represented participants (insofar as it is not directed at the viewer), is a special kind of vector. It creates a reaction rather than an action. Such a reaction can, again, be transactive or non-transactive. It can be that we see both the person (or perhaps animal) who is looking and the object of his or her gaze (transactive reaction), or only the person looking and not what he or she is looking at (non-transactive); for example, the woman in Figure 7.1 looks but we do not know what at. Facial expressions and gestures can then 'colour in' the nature of the reaction as pleased or displeased, deferential or defiant, and so on.

The concepts of narrative visual analysis (action, reaction, transactive, non-transactive) can help 'interrogate' a visual text, help to frame questions such as who are playing the active roles of doing and/or looking and who the passive roles of being acted upon and/or being looked at in visual texts with certain kinds of participants (for example, minorities). Who are shown as people who act, who as people who react in visual texts about certain issues? This kind of analysis of the narrative processes in the study of sexual health education leaflets and posters revealed that men and women were represented as equally active – which is not always the case in images showing men and women. However, the nature and the occasion of men's and women's action in the images differed in important ways. Overall, women were represented as passive, or less active, in the context of sexual activities, where they were shown as 'reactors' rather than 'actors', or as involved in non-transactive actions, actions that have no effect or impact on some other entity. Men were more often shown in transactive actions: it was men who were represented as initiating sexual activities and as most sexually active, literally in the driving seat, while women were more often presented as sexually passive (literally a 'passenger' in the case of Figure 7.1). The study showed that women were shown as enforcing sexual protection by insisting on condom use, as in Figure 7.3. The goals of male and female actions also differed, and women were more frequently the goal of actions than men. The goals (objects) of the female actors' transactive actions can be characterized as risk reducers (for example, condoms, information booklets). In contrast, the cultural symbolism of the goals (objects) of the male actors' actions can, with the exception of condoms, be described as risk enhancers (for example, contact sport or, as in Figure 7.1, a convertible sports car) with the associated wealth and success.

### Conceptual structures

Images which do not contain vectors are 'conceptual'. They visually 'define' or 'analyse' or 'classify' people, places and things (including again abstract things). One kind of conceptual pattern is the classification structure. Classification structures bring different people, places or things together in one picture, distributing them symmetrically across the picture space to show that they have something in common, that

they belong to the same class. Figure 7.2 for instance, offers such a classification of the male body. Throughout the images visual classification structures were used which consistently highlighted the individuality of men. For instance, men in the images rarely looked at one another and were separated (disconnected) by the use of space on the page. In contrast women were visually represented as connected both to one another, and to men in terms of gaze, and the 'occupation of space on the page'.

Symbolic structures define the meaning or identity of a participant. In the symbolic attributive structure the identity or meaning of one participant (the 'carrier') is established by another (the 'symbolic attribute'). Here Kress and van Leeuwen (1996) rely on iconography (see Chapter 5). Symbolic attributes are recognized through one or more of the following characteristics: they are made salient in the representation, for example by their size, position, colour, use of lighting; they are pointed out by means of a gesture; they look out of place in the whole; they are conventionally associated with symbolic values.

A range of props conferred symbolic meaning or attributes on the represented participants. Cars and motorbikes, both potent cultural symbols of male virility and sexual prowess in Western industrial society, were used to confer masculinity on the men in some of the images (as in Figure 7.1). Sports equipment and settings were used to signal competitiveness between men and as signifiers of their heterosexuality.

Analytical structures, finally, relate participants to each other in terms of a part-whole structure. Maps are analytical structures and so are pie charts. In all these cases a concept or entity is defined by showing how it is made up out of which parts. Whatever the concept or entity, this can always be done in more than one way. A map of Europe, for instance, may analyse Europe as consisting of countries or as consisting of different kinds of soil, or of different altitudes. Analytical structures always have two key participants: the carrier (the whole) and any number of 'possessive attributes' (the parts). Diagrams of male sexual and reproductive organs were the main use of analytical diagrams in the study of sexual health leaflets and posters. In these diagrams the carrier was the male or female sexual and reproductive system, which consisted of labelled possessive attributes (parts). The inclusion and exclusion of elements in these diagrams served to define the whole, that is what was legitimately considered 'sexual'. It also served to realize the norms of sexuality. For example, many of the diagrams only included a representation of the anus in the context of disease, rather than sexual pleasure, thus confirming heterosexual norms.

Kress and van Leeuwen (1996: Chs 2 and 3) distinguish further sub-types of many of these 'syntactic' patterns, but the ones discussed here are the most important. This is not to say that they provide all that is necessary for studies of the visual representation of specific issues of social significance. In the study of sexual health leaflets and posters two aspects were added that clearly belong to the sphere of representational meaning: the setting of images and the visual appearance of social actors.

Settings were associated with the 'level of male sexual control' and with signifying whether or not sexual activity had taken place. In the study, 'level of male sexual control' was defined by such factors as: who initiates and directs the action; the difference in eye-levels of the represented participants (as an indication of the power relationship between them); who vetoes sexual activity; and who possesses or provides

sexual information. The settings in the images indicated that women and men were represented as having sexual control in different environments. Women were represented as possessing sexual control in the home/domestic settings, in leisure (public) venues, in medical settings and in 'nature' – outdoors with grass and trees. Men were depicted as having sexual control in the urban (outdoor) environment. For example, the man in Figure 7.1 is in the driving seat, literally and metaphorically – it is his car and the condoms are in his pocket. Men on the street were represented as sexually in control or 'predatory', but once in domestic settings they were shown to relinquish control to women.

The dominant representation of men in the sample, as judged by analysis of the actors' hair, clothes, posture, facial expression, the relative eye-levels of participants and their actions, was one of conventional hegemonic masculinity. Within the images men were shown in competition in relation to masculinity and sexual prowess. The notion of a continuum of male sexuality is visualized in the leaflet '4 Boys' (Figure 7.2) which shows a row of eight boys. The dichotomy between gladiator and wimp is apparent as two extremes on a continuum of masculinity, with a visual image of a strong boy on the left of the image through to a weaker looking boy on the right. Men's individuality is emphasized by the difference in their appearance, posture, age, height, ethnicity and props. The symmetry of the men in these images suggests that while being an individual is a defining feature of being a man, masculinity is a unifying experience which transcends individual difference.

## INTERACTIVE MEANING

Images can create particular relations between viewers and the world inside the picture frame. In this way they interact with viewers and suggest the attitude viewers should take towards what is being represented. Three factors play a key role in the realization of these meanings: distance, contact and point of view (see Chapters 2 and 9). Together they can create complex and subtle relations between the represented and the viewer. As will be shown, the relationship between the viewer and the men represented in the sample of sexual health leaflets and posters is presented as visually more demanding but more socially distant and less involved than the relationship between the viewer and the women represented.

### Contact

Many pictures show people who, from inside the picture frame, look directly at the viewer. In this way they 'make contact' with the viewers, establish an (imaginary) relation with them. Kress and van Leeuwen (1996) call such pictures 'demand' pictures – the people in the picture symbolically demand something from the viewer. Facial expression and gestures then fill in what exactly they 'demand' in this way: they can demand deference, by unblinkingly looking down on the viewers, or pity, by pleadingly looking up at them; they can address viewers with an ingratiating smile or unsettle

them with a penetrating stare (for example, the defiant posture – hands on hips, legs astride – and stare of the boy on the left in Figure 7.2). Gestures can further modify what is demanded, as in the famous ‘Your Country Needs YOU!’ recruitment poster. Without this kind of ‘imaginary contact’ we look quite differently at the people inside the picture frame. We ‘observe’ them in a detached way and impersonally as though they are specimens in a display case. Kress and van Leeuwen (1996) call such pictures ‘offers’ – an ‘offer of information’ is made (for example, the boy on the far right of Figure 7.2). The terms ‘offer’ and ‘demand’ were taken from Halliday (1985) who uses them to distinguish between different classes of speech act, questions and commands, which ‘demand’, respectively, ‘information’ and ‘goods and services’, and statements and offers, which ‘offer’, respectively, ‘information’ and ‘goods and services’. In the study of sexual health leaflets and posters, contact between the viewer and the images of the men was more often in the form of a demand; in contrast women were more often portrayed in the form of an offer. That is, women were visually represented as more sexually passive and available than men who were visually represented as sexually active or demanding.

## Distance

Images can bring people, places and things close to the viewer or ‘keep them at arm’s length’. In everyday interaction the norms of social relations determine the distance we keep from each other. This translates into the ‘size of frame’ of shots. To see people close up is to see them in the way we would normally only see people with whom we are more or less intimately acquainted. Every detail of their face and their expression is visible. We are so close to them we could almost touch them. They reveal their individuality and their personality. To see people from a distance is to see them in the way we would normally only see strangers, people whose lives do touch on ours. We see them in outline, impersonally, as types rather than as individuals. This does not mean of course that the people we see represented in close-up are actually close to us, or vice versa. It means they are represented as though they belong or should belong to ‘our group’, and that the viewer is thereby addressed as a certain kind of person. There are of course many intermediate degrees between close-up and distance, just as there are, in everyday life, many intermediate degrees between the most intimate relations and the total absence of a relation. To describe these the terminology of film and television can be used. A close-up (head and shoulders or less) suggests an intimate/personal relationship; a medium shot (cutting off the human figure somewhere between the waist and the knees) suggests a social relationship (as in the couple in Figure 7.1); and a ‘long shot’ (showing the full figure, whether just fitting in the frame or even more distant) suggests an impersonal relationship (such as in Figure 7.2). In the study of sexual health leaflets the relationship between the viewer and the represented men was presented as more intimate when the men were accompanied by women: perhaps the presence of women in images enabled a more intimate portrayal of men as they resolved the problematic issue of men looking at other men (see Chapter 4 for a discussion of audience ‘gaze’).

## Point of view

The third factor is point of view (see Chapters 4 and 9). We have already described how frontal angles were used to increase audience identification and involvement with represented participants who reduce sexual risk and vertical angles were used to represent men as powerful in particular roles. Detachment was illustrated by a male-represented participant’s failure to acquire the norms of hegemonic masculinity (as in Figure 7.2).

One further aspect of interactive meaning, modality (see Chapter 2, this volume), will be discussed in relation to the application of visual social semiotics to explore the rhetorics of the science classroom (Kress et al., in press).<sup>1</sup> So at this point it is useful to summarize the role of visual social semiotics in the study of sexual health promotion materials we have used so far. Visual social semiotics helped illuminate how the structures of the images contributed to the representation of concepts of masculinity. The message of the leaflets and posters clearly was not only verbally but also visually conveyed. In particular the method of analysis identified visually signified meanings which, in words, would have been unacceptable to many professionals and young people. It highlighted the visual oversimplification of male sexuality, the failure of the materials to address young people’s emotional concerns, the visual polarization of men and women, and the visual legitimating of a narrow definition of male and female sexuality.

## COMPOSITIONAL MEANING

Further resources of social semiotic visual analysis will be explored in relation to another example, in which we focus on how two 11-year-old students grappled with the problem of how to make a visual and written text ‘scientific’. They had looked at the cells of an onion under the microscope and were asked to draw ‘what they saw’ and describe in writing ‘what they did’. The teacher gave explicit instructions on how to compose the text, to place the image in the bottom part of the page and the writing in the top part of the page. Below we first introduce some further social semiotic resources for visual analysis, and then discuss their use in the work of Ramendeeep and another student from the same class, Amy, who used them quite differently. They include three resources of compositional meaning: information value; framing; and salience and modality, an important ‘interactive’ resource we have not yet discussed. The compositional structures discussed below can also be applied to the layout of composite texts such as magazine pages, illustrated books, and so on.

## Information value

Information values are realized by the placement of the elements of a composition. The idea is that the role of any particular element in the whole will depend on whether it is placed on the left or on the right, in the centre or the margin, or in the upper or the lower part of the picture space or page.

In societies which use Roman script the direction of the reading of a text (left to right, from top to bottom) has led to different cultural values being awarded to the left and the right. According to Kress and van Leeuwen (1996), left-right placement creates a 'given-new' structure. The elements placed on the left are presented as 'given', the elements placed on the right as 'new'. For something to be 'given' means that it is presented as something the viewer or reader already knows, as a familiar and agreed departure point for the message. For something to be 'new' means that it is presented as something not yet known and not yet already agreed upon by the viewer or reader, hence as something to which the viewer or reader must pay special attention. The 'new' is therefore problematic, contestable, the information 'at issue', while the 'given' is presented as commonsensical and self-evident. Again, this is a meaning potential which will get more specific contours in the context of specific images.

As for top and bottom, again, if some of the constituent elements are placed on top and others at the bottom, then what is placed on top is presented as what Kress and van Leeuwen (1996) call the 'ideal' and what is placed at the bottom as the 'real'. For something to be 'ideal' means that it is presented as the idealized or generalized essence of the information, hence usually also as its ideologically most salient part. The 'real' is then opposed to this in that it is its meaning potential to present more 'down to earth information'. According to the context this can become more specific information (for example, details), more practically oriented information (for example, practical consequences, directions for action) or more real information (for example, photographs as documentary evidence). In Figure 7.2, the writing in the text of men realizing their sexual fears and concerns will be the 'ideal', the image of sexual bravado the 'real'.

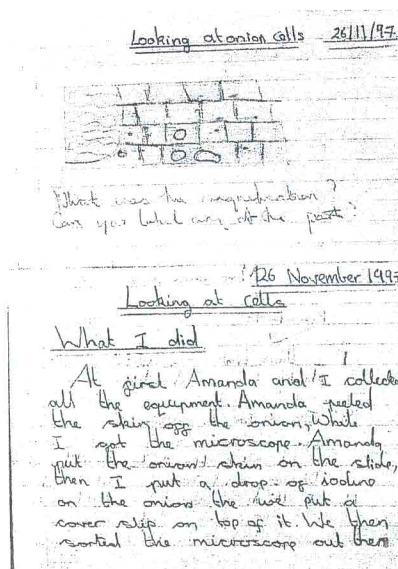


Figure 7.4 Onion cell text by Ramendeeep, aged 11 years.

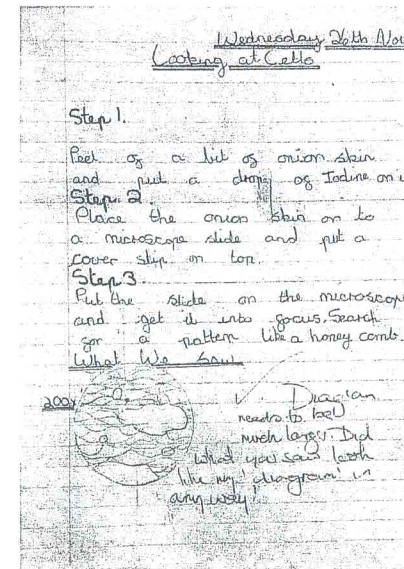
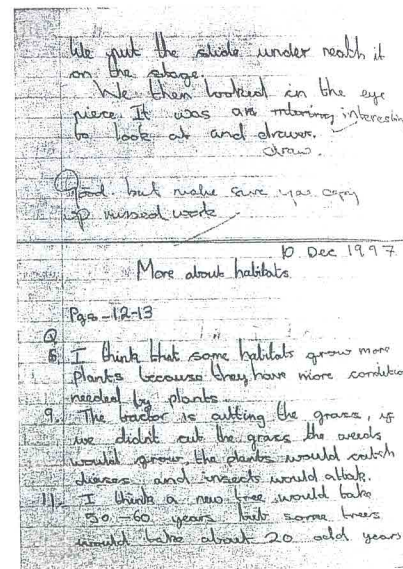


Figure 7.5 Onion cell text by Amy, aged 11 years.

Centrality, finally, means what it is: what is placed in the centre is thereby seen as what holds the 'marginal' elements together. The marginal elements are then in some sense the elements that are held together by the centre – belonging to it, subservient to it, and so on, depending on the context.

The teacher's instruction to place the writing in the top part of the page and the image in the bottom part carried with it a particular notion of text as primarily a written entity: the writing was the prior process, placing the image in the role of outcome. The pupils responded to this instruction differently: Ramendeeep recast the instruction using composition to produce an different design (Figure 7.4); Amy did not transform the teacher's design, but adapted it slightly to integrate the image as 'illustration' through the partial merging of writing and image in her text.

The question becomes one of whether the pupils are treating the text as being primarily logged in writing or image. In both cases the texts are designed to be read top-down. In Ramendeeep's text (Figure 7.4) her use of the top and the bottom of the page gives the information value of abstract ideal to the image (top) and the value of the empirical real to the written element. That is, the visual element of the text, her drawing, represents the means of carrying the abstract theoretical representation of 'scientificness'. In contrast, the written element of her text is an empirical account of 'what she did' indicated by the diary-like genre of the writing: a narrative, personal voice, past tense declaratives and the recounting of particular events. The 'scientificness' is primarily logged visually in Ramendeeep's text. In Amy's text (Figure 7.5) her arrangement of elements in the top and bottom of the page presents the writing as the abstract theoretical representation of 'scientificness', and her drawing as the empirical real, the 'outcome' of the procedure. Her writing achieves the genre of science: a

procedural account with numbered steps, agentless voice and imperative statements. Her drawing provides a specific sensory image of what she saw – the evidence. Amy's text nonetheless shows a move to integrate the process and evidence by the partial integration of the visual and written in the way title and image intersect one another.

## Framing

The term 'framing' indicates that elements of a composition can either be given separate identities, or represented as belonging together. In other words, framing 'connects' or 'disconnects' elements. Disconnection can be created in many ways,



through framelines (which may be thick or thin: there are degrees of framing), through empty space between elements, but also through contrasts of colour or form, or any other visual feature – in short, through any form of discontinuity, disconnection or contrast that can be visually signified. Connection can be achieved in exactly the opposite way, through similarities and rhymes of colour and form, through vectors that connect elements, and of course through the absence of framelines or empty space between elements. In every case the discontinuity or continuity between elements in a sense expresses what it is, that is the elements are separated or made to belong together. This broad meaning potential can then be made more precise through the context, and also through the means of framing chosen.

In Ramendeeep's text (Figure 7.4) these compositional resources are used in a variety of ways. The image is first and arguably the most salient element of the text. Image and writing are presented under different titles and the date heads each section of the text. The image is entitled 'looking at onion cells' and the writing is entitled 'looking at cells' and 'what I did'. Image and writing are presented as two quite distinct parts of the same text and their disconnection is strengthened by a line separating them (the fact that they are on the same page maintains their connection as one textual unit). This separation of the visual and written elements of the text marks a shift from the abstract (visual) to the specific 'concrete actions' located in the pupil's personal experience (written). Two different modes are used to realize different communicative functions – the writing to convey the personal, the visual to convey the scientific. At another level, the framing of the visual sets scientific reality apart from everyday reality and also indicates that what is seen 'through the microscope' is only a selection of what can be seen: it is a visual abstraction or generalization of the cell. The frame of the image, a rectangle with an 'open' (left) side presents the cell as an instance taken out of the empirical. In Amy's text (Figure 7.5) the written element and the visual element of the text partially merge – they are less strongly framed as separate. The written element is strongly framed in terms of scientific genre – the steps of the experiment are clear. The circular framing at the level of the image frames the visual information as 'empirically real' – what is there for Amy. In other words, both pupils have used framing at the level of the text and at the level of image to realize their different interests.

## Salience

The term 'salience' is used by Kress and van Leeuwen (1996) to indicate that some elements can be made more eye-catching than others. This again can be made in many different ways, through size, through colour contrasts (red is always a very salient colour), tonal contrast – in short through anything that can make a given element stand out from its surroundings. In Figure 7.1, for instance, the car and man are the most salient elements of the picture because of their size, the way the man's face is foregrounded (displayed) and the way the car's sleek smoothness contrasts to the less sharply defined textured wall in the background.

The pupils' different decisions in the positioning of, and amount of page given to, the visual and written elements of the text gave different salience to each of these

elements within their texts. The drawing is most salient in Ramendeeep's text (Figure 7.4) (it comes first and occupies 40 per cent of the page), whereas the writing is most salient in Amy's text (Figure 7.5) (it comes first and occupies 60 per cent of the page). Ramendeeep's use of a yellow-green in her drawing (despite being instructed not to use colour by the teacher) and her use of shading added to its salience.

## Modality

Photographs are often thought of as 'images of the real', as images that show things exactly as they might also be seen in reality with the naked eye (see Chapters 3 and 4). On the other hand, graphs and diagrams can also be thought of as true to reality, as images that depict the world as it is, objectively, scientifically – and yet they lack all the characteristics that contribute to the photographic impression of reality. They are general where photos are specific, abstract where photos are concrete, conventional where photos appear to be an 'imprint of reality'. How can these two modes of representation both claim to be real when they are so very different? They can both claim to be real because the claims are based on different definitions of reality. Naturalistic modality (modality = 'reality value') defines visual reality as follows: the greater the congruence between what you see of an object in an image and what you can see of it in reality with the naked eye, in a specific situation and from a specific angle, the higher the modality of that image. That, at any rate, is the theory, for the modality of photographs is, in the end, also based on convention, namely on the conventions built into the most widely used realistic image technologies. Modern 35mm photography, not reality, is the contemporary standard of high naturalistic modality, and as soon as an image displays more sharpness, more colour saturation, a deeper perspective, than the average colour photo, its modality decreases again and it begins to look 'more than real', or 'surreal', 'fantastic' or 'ghostly', depending on the way this particular meaning potential of what Kress and van Leeuwen (1996) call sensory modality is actualized in the specific context. Scientific modality on the other hand is based not on what things, in a specific situation and from a specific angle, look like, but on how things are in general, or regularly, or according to some deeper, 'hidden' truth. The scientific image probes beyond the surface and abstracts from detail. There often is no background, detail is simplified or left out, colour and depth regarded as superfluous. Precisely those means of expression which ensure high modality from the point of view of naturalism are here regarded as unreal and irrelevant indicators of low modality.

Ramendeeep's image (Figure 7.4) uses the resources of scientific modality (for example, the waving lines in the left section of the image and the lack of depth of the image) to realize an abstracted account of cells. The drawing appears to be primarily concerned with the idea of regularity and sameness: a visual search for, and presentation of, scientificness as a generalized pattern of meaning. The distinctly different pattern of the air bubble (the circle on the left of the image) and the cells visually marks their difference. As Ramendeeep looked through the microscope in the lesson, she said 'It looks like a brick wall'. This visual analogy is also apparent in her drawing of cells. The analogy focused on the positive elements of regularity

and uniformity of cells and embodies the relationship of the part (the cell or brick) to the whole (the onion or brick wall). A brick wall is a familiar thing in an urban environment and the familiarity implied by the visual analogy comments on its everydayness: cells are everywhere.

Amy on the other hand realized the key conventions of scientific text in the written element of her work (Figure 7.5). The voice is impersonal and the agent unnamed. Imperatives give the reader directives for re-creating the experiment. These imperatives have a generalizing effect. They convey 'what one should do' to repeat 'what I did'. The effacing of the narrator presents the writing as factual and objective. The absent narrator serves to absent the audience: they are nowhere addressed and yet they are assumed to be completely known and therefore present in every facet of the language (Kress, 1994). The voice of the writing serves to distance Amy from the experience of the experiment (in contrast to her excited exclamations in the classroom). The visual element, on the other hand, is more personal and less scientific. The teacher's somewhat desperate comment on the drawing ('Did what you saw look like "my diagram" in any way?') suggests that he might agree with this assessment.

Although Amy uses some of the resources of visual scientificness, she also makes them more personal and affective. The circular frame of the image, for instance, is a convention generally used to encode the experience of seeing through a microscope, making the equipment, the microscope, part of the representation. But the organic flow of the lines in her image suggest an emphasis on 'the experience of looking' rather than on 'what I saw'. Similarly the lack of colour and the flatness of the image both suggest an abstract representation, moving more towards the scientific than towards the naturalistic modality. But the frame was tentatively drawn with a compass and so suggested a tension between the certainty of a mechanistically produced circle and the hesitancy of the maker, and realized a sensory or aesthetic modality focusing on the emotion and affect of the event rather than on scientific realism. It realized Amy's involvement and excitement. This interest in the sensory modality was carried through in Amy's use of the analogy 'a wavy weave – in and out of each other in our microscopes'. The image is represented beneath the title 'what we saw' and the title for the writing is 'looking at cells'. These titles suggest that the agency involved in the visual experience of looking at the cells is different from the agency involved in making them visible. Through her writing Amy transformed her experience of doing the experiment into a generalized set of actions, whilst through her image she asserted her individual experience of seeing the cells.

Using the social semiotic approach to image analysis in the context of this part text-analytical, part ethnographic-like research showed that the concepts of composition, frame and modality were useful in drawing attention to how these texts reflected the consequences of pupils' differently interested use of genre resources and differently emerging expressions of scientificness. It highlighted how the pupils' experiences were mediated differently through their use of image and writing in the texts: that is, the visual and written elements of the texts contributed differently to the realization of 'being scientific'; and the experience of the experiment for each pupil. The texts can be explained by seeing them as the product of the different stances each pupil adopted to the recording of their experience of learning and to the protocol of 'being scientific'.

In short, the visual and the written elements of a text appeared to attend to different aspects of meaning, that is, they realized different functions.

## CROSS-CULTURAL STUDIES USING SOCIAL SEMIOTICS

Kress and van Leeuwen (1996) see their work as valid for the broad domain of contemporary Western visual culture, as globally distributed through the hegemony of Anglo-American mass media in the world, albeit of course with all kinds of local accents. Our last example is from a study which used visual social semiotics to explore cultural difference in the realm of the advertising image, through a comparative analysis of British and Japanese advertisements (Oyama, 1999). We will focus on one aspect of the study: the cultural meanings of the left–right, given–new type information structure posited by Kress and van Leeuwen (1996).

Figure 7.6 represents two public signs for 'exit' that make use of a type of visual image called isotype. A system of isotypes was devised by the Viennese philosopher and social scientist Otto Von Neurath (1937, 1948) to convey information to the general public. Von Neurath believed this system to be universally communicative, as opposed to the opacity of verbal language, which he viewed as 'a disfiguring medium for knowledge' in that 'its structure and vocabulary fail to be a consistent, logical model of objects and relations in the physical world' (Lupton, 1989: 145).

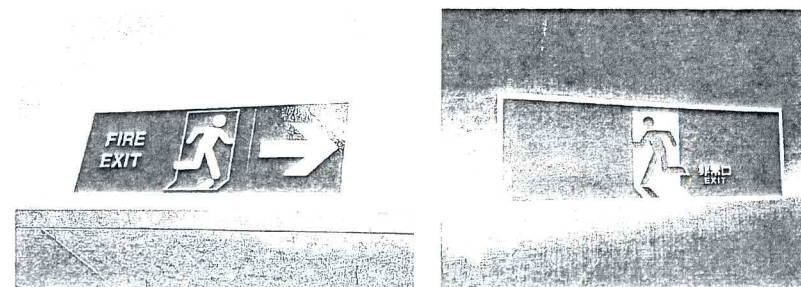


Figure 7.6 British and Japanese 'exit this way' signs.

Both signs in Figure 7.6 realize the same meaning ('exit this way') but their visual directionality differs. In the British example (first image) the orientation of the human figure is to the right, whereas in the Japanese example it is to the left. If, as Von Neurath suggested, the isotype provides universality in the manifestation of visual information, the question arises as to how this difference can be explained. Clearly the lexical aspect (content of the visual images: 'exit') is independently variable in relation to spatial orientation, and spatial orientation (visual syntax) creates, implicitly, an indication of visual directionality which is culturally different. If the meaning potential of the given is, informationally, 'where you come from', your 'point of departure', and the meaning potential of the new, 'where you are going to', 'what you must attend to', then it may

be that the visual realization of these informational meaning potentials is not the same in the two cultures.

The key role of directionality in meaning-making and its difference in British and Japanese cultures can be seen in another Japanese example, which advertises male hairpieces and appeared in a Japanese magazine. There are two photographs above the lead copy, both of which show a family of three (who appear to be on holiday; there is a suitcase, on which a little girl is sitting, and the man is carrying a travel bag on his shoulder). These two photographs indicate the difference in the man's hair: in the left photograph the man has hair, whereas in the right photograph he is bald. An advertisement for cosmetic surgery by a clinic taken from a British women's magazine shows parts of a patient's body before and after cosmetic surgery. For example, one photograph on the top left shows two states of a woman's nose, before and after surgery. Clearly both examples have a 'before and after' structure, with a problem forming the 'given', the point of departure for the message, and a 'new' forming the solution. But in the Japanese example the given is on the right and the new on the left, whereas in the British example it is the other way around. Clearly, like horizontal directionality, horizontal distribution of space also differs in the two cultures, and along the same lines. The Japanese example realizes given in the right and new in the left. The British example realizes given in the left and new in the right. Different kinds of visual semiotics operate in the context of Japanese and British representations.

## CONCLUSIONS

Kress and van Leeuwen's method of visual analysis provides essentially a descriptive framework. For this reason it does not, on its own, offer all that is needed for the sociological interpretation of images. As already mentioned, the study of sexual health promotion campaigns we used as one of our key examples not only had to draw on social theories of gender and masculinities and earlier studies of gender construction in images, but also on methodologies allowing a more systematic analysis of the similarities, differences and patterns in the sample of images (Ritchie and Spencer, 1994). Kress and van Leeuwen's (1996) method (which is simplified here) is also quite complex and introduces a great deal of new terminology which can appear pedantic to the outsider and requires elaborate explanation every time the method is used in writings that will be read by audiences who are not familiar with it.

That said, the method is effective in bringing out hidden meanings. In the case of the sexual health study, it brought out that leaflets and posters which were meant to communicate to all young people (some specifically to young men) were in fact quite strongly oriented towards heterosexual norms. There was, for instance, a visual association of anal sex with disease which would not be conducive to the aim of the leaflets to practise safe sex and which appealed to fear and homophobia. The method also revealed gender representations which were not apparent in the written text, such as over-simplifications of male sexuality and portrayals of men as sexually less complex than women. Analysing the action processes, the symbolic attributes and the composition of the images the study found that sex was portrayed as a skill or technique to

be acquired by men, comparable to driving a car or playing a sport, and a physical activity rather than an emotional experience. This clearly reinforces society's message that women, not men, have sexual problems, that men are not sexually emotional, and serves to maintain the invisibility of male sexual problems. The study also used semiotic analysis to show how the images failed to address young men's emotional concerns and responses to sexual experiences. Setting, symbolic attributes, composition and framing visually asserted competitiveness as a key aspect of heterosexual male sexuality and the visual display of intimacy between men was restricted to designated social contexts such as sports, business and family groups. Men were not shown in caring roles. Finally, the study showed how the visual polarization of men and women conflicted with the verbal assertion of the need for them to negotiate. The images represented men in a negative way and women in a positive (or at least morally superior) way. This is unlikely to contribute to the desired effect of the campaigns. Roles were polarized. Men were shown as taking risks, women as protecting; men as sexually knowing, women as innocent; men as simple, women as complex; men as physical, women as emotional; men as irresponsible, women as responsible. This polarization undermined the textual message of shared sexual goals and emotions, and the positive potential of this for the negotiation of safer sex. The images in the sample thus reflected the traditional reliance of health promotion materials on women to mediate HIV prevention and sexual health messages to young men. The images emphasized the ability of women to ignore their own sexual desires and represented heterosexual male sexuality as more potent than female sexuality, while depicting woman as sexual mediators and guardians of sexual morality.

Clearly this shows that in sexual health promotion materials, science education and society more generally, images play a role which goes far beyond the mere illustration of what is communicated in language, and images can contradict and work against spoken or written messages. If image analysis can bring this out, it can help improve and change practices (such as the production of information leaflets, or the teaching and assessment of learning), which can then lead to that third kind of social semiotic work we mentioned at the outset of this chapter – developing new semiotic resources and new uses of existing semiotic resources.

## NOTE

- 1 This example is drawn from an ESRC-funded research project entitled 'The rhetoric of the science classroom: a multimodal approach' undertaken by C. Jewitt, G. Kress, J. Ogborn and C. Tsatsarelis for the Institute of Education, University of London.

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