The Problematic of Écriture

Comparing Langue and Ériture

Having established that **langue** and **écriture** are two distinct systems of signs, Saussure makes it clear that the former is to be the cornerstone of his meta-semiological project. That is, Saussure makes a methodological decision to privilege the study of the language system on the basis of the cross-coupling of the phonic and conceptual orders of difference. However, **langue** and **écriture** in any given language are also related to each other. What does it mean, then, to say that there are two distinct systems of signs which belong to the same language? Before answering this question, it is useful to reflect on the metatheoretical status of the notion of system in Saussure's conceptual framework.

The systems of **langue** and **écriture** are not reified categories. They have no independent existence of their own. In the first place, they are derived from an analytically prior phenomenon, 'the global totality of language'. In the second place, they are both grounded in instances of language in use, viz. **parole** and **mot écrit**. Now, Saussure's concept of system enables both linguists and language users in general to compare the terms in one system with those in some other. This is one of the principles underlying the concept of value (Thibault 1996: chap. 7). Saussure refers to the way in which the terms in one system may be compared to the terms in some other system. Thus, French words may be compared to English words in this way. Saussure's concept of system is a metatheoretical category. Similarly, the terms of the spoken system may be compared to those of the written system. Importantly, this principle (of comparison) is generalizable to a wide range of types of sign systems other than the spoken language: "The language system **[la langue]** is a system of signs which express ideas, and for this reason, comparable to **écriture**, the alphabet for the deaf and dumb, symbolic rites, forms of politeness, military signals, etc. etc. It is only the most important of these systems". (CLG: 33)

The matter is put even more clearly in Engler's Critical Edition of CLG:

"It is also evident that langue does not embrace all kinds of systems formed by signs. There must, therefore, exist a science of signs which is broader than linguistics (systems of maritime signs, for the blind, deaf and dumb, and finally the most important: writing itself". (Saussure/Engler 1967: 46)

Langue is not an all inclusive notion. In Engler's Critical Edition, the following observations also occur:

"This comparison [of **langue** to other sign systems, PJT] could be pushed much further (in detail) and analogies could also be found between other signs systems (other than writing, even the system of maritime signals) and that of **langue**. One is quite aware of being in the same order of facts. However, it is not necessary to look for perfect identity: a minister can change the system of maritime signals. But supposing things are left to themselves, they are clearly analogous to that which happens in linguistics. The same analogy would also be revealed in the language of the deaf and dumb". (Saussure/Engler 1967: 47)

There are two important points to make here. First, **écriture** and other sign systems may be compared to **langue**. Secondly, there are **analogies** between the different sign systems. For example, there are analogies between the phonetic facts of **langue** and some comparable set of graphic facts in **écriture**. Indeed, Saussure says just that:

"No series of signs will have a more considerable importance in this science than the linguistic facts. One would be able to find the equivalent in **écriture** of that which are the phonetic facts in **langue**. "We will tackle the language system **[langue]** by a synthetic way. We will tackle that which appears to us to be its basis, without which it would not be the language system". (Saussure/Engler 1967: 47)

The "synthetic way" that Saussure refers to is, quite simply, the methodological procedures which the linguist uses: (1) to establish what the relevant facts of a given system are; and (2) to make comparisons between one sign system and another, e.g., between **langue** and **écriture**. The metatheoretical notion of system is general to: (1) sign systems of all kinds; (2) all languages; and (3) the spoken and written systems of any given language. Clearly, the progression from (1) to (3) entails a descending order of generality, yet the basic category of system remains valid at all levels.

The metatheoretical category of system is, then, generalizable to sign systems of all kinds. Thus, **langue** and **écriture** are general theoretical categories which may be applied to any spoken or written language system. On this basis, some equivalent set of visual-graphic facts may be postulated for **écriture** in the same way that phonetic facts are postulated for **langue** (see citation above). On the other hand, the phonemes or the graphemes which make up, respectively, a particular spoken or written language system are descriptive categories. That is, they are used to describe, respectively, the phonic and graphic facts of a particular language. This helps to clarify Saussure's concern for the dangers of confusing the spoken and written words as the same object of study. The equating of the graphic facts of **écriture** with the phonic facts of **langue** entails a confusion on both the theoretical and descriptive levels.

The former cannot be taken as the basis for describing the latter. This issue will be discussed in the next section.

Criteria for the Investigation of Langue

Saussure gives us a further clue as to the specific problem which **écriture** poses in the opening paragraph of chapter VII of CLG, which is entitled 'Phonology'.

"When one removes writing from thought, that which is deprived of this perceptible image **[image sensible]** risks being perceived as no more than an unformed mass which leaves one at a loss. It is as if someone learning to swim had their cork float taken away.

"It would be necessary to replace all of a sudden the artificial with the natural; but that is impossible unless one has studied the sounds of the language system **[la langue]**; for detached from their graphic signs, they represent only very vague notions, and one still prefers the support, even if misleading, of writing. The first linguists, who were ignorant of the physiology of articulate sounds, fell into these pitfalls all the time; letting go of the letter was for them losing their footing; for us, it is a first step towards the truth; for it is the study of sounds themselves which provides us with the help we are looking for. Modern day linguists have finally understood this; taking up on their own account the researches inaugurated by others (physiologists, theorists of song, etc.), they have bestowed on linguistics an auxiliary science which has freed it of the written word". (CLG: 55)

The problem which Saussure addresses here has to do with the ways in which the "perceptible image" of writing leads to a theoretically distorted conception of the sounds of the spoken language system, or **langue**. The 'fixed' and 'constant' – spatial – nature of the graphic image has rendered

this easier to latch onto than the transient – temporal – nature of speech sounds. Therefore, if the linguist tries to theorize **langue** on the basis of the visual image, then, once this is removed, it becomes difficult to see how thought combines with specifically phonic differences to form the signs of the spoken language system, or **langue**. For this reason, thought, without the visual image, will appear to be an unformed mass. Saussure appeals to the new science of phonology as a means of solving this theoretical impasse and of placing the study of the spoken language system on a secure theoretical footing. In so doing, he points the way to an adequate description of the (phonic) signifiers of the spoken language.

In the first paragraph of the passage quoted above, Saussure, in effect, invites his audience to participate in a small 'thought experiment'. His purpose is to draw attention to the need to distinguish very clearly between the phonic and the graphic orders of difference. The specific problem he poses concerns the way in which it is misleading to talk about acoustic images on the basis of the graphic images of the written language. Instead, new theoretical instruments are called for in order to talk about the specificity of speech sounds.

This does not invalidate the visual-graphic image as an object of study. It is just that it is the wrong means of access to **langue**. Afterall, psychologists do not study the acoustic properties of sound waves by analyzing light waves. At the time Saussure gave his Geneva lectures, recent advances in the science of phonology had begun to find solutions to the problems of apprehending and studying the acoustic image. Saussure himself was a leading figure in these developments. But, Saussure points out, phonology is "only an auxiliary discipline and it only concerns **parole**" (CLG: 56).

The relevance of this for writing is twofold. First, the newly emergent science of phonology meant that it had become possible for the first time to

study the nature of the acoustic image, along with the articulatory movements that underpin this, without the obfuscatory influence of the visual image. Secondly, neither the "perceptible image" of writing nor the articulatory movements involved in phonation can in themselves provide access to **langue**. What is important from the system point of view is the "play of oppositions", and not the material substrate – graphic or phonic – which manifest signs in social semiosis. This play of oppositions constitutes the system's informational capacity. The mapping of the system's stored information onto the constantly fluctuating environment of the muscular movements in phonation serves to control and coordinate these as well as to enable them (lecture 3).

To summarise the arguments so far: Saussure claims that **écriture** does not constitute a proper basis for the study of **langue**. These are two distinct systems of signs. Further, neither the study of phonology nor graphology can in themselves reveal the mechanisms whereby "the psychic oppositions of the acoustic impressions" constitute the internal basis of **langue**. Both the muscular movements involved in phonation, as well as the "perceptible image" of the grapheme, are external to **langue**. This is so for different reasons in the two cases, but the salient point is that neither constitutes a correct point of departure for studying the inner workings of **langue**.

The problems Saussure has with **écriture** derive, then, from his desire to understand the internal design principles of **langue**, i.e., the languagesystem-based-on-sound. This point needs to be emphasised. The theoretical category of **langue** does not refer to some general notion of the language system, irrespective of whether it is based on acoustic images or visual-graphic images. Such a notion would be a contradiction of the fact that a given language system (spoken or written) is based on the crosscoupling of terms from two orders of difference. Thus, **langue** is based on the cross-coupling of the conceptual and the phonic orders of difference. Likewise, **écriture** is based on the cross-coupling of the conceptual and graphic-visual orders of difference. For this reason, Saussure calls into question a linguistics which would study the system of **langue** on the basis of written evidence. To do so amounts to a contradiction in terms. This helps us better understand Saussure's fervent attack on alphabetic writing systems which are purportedly based on phonetic principles. He repeatedly drives home the need to distinguish between the systems of **langue** and **écriture** and to be clear about the different design principles that underpin each. It is for these reasons that **langue** and **écriture** are two distinct systems of signs. **Écriture**, no less than **langue**, is founded on the semiological principle of value. In chapter IV, in his discussion of the material aspects of value, Saussure compares **langue** and **écriture** in the following way:

"One can observe an identical state of affairs in the other system of signs that is writing, which we shall take as a point of comparison in order to explain this question:

"1. the signs of **écriture** are arbitrary; no relationship, for example, between the letter t and the sound that it designates;

"2. the value of the letters is purely negative and differential; thus the same person may write t with variants such as:

[see original text for handwritten figures]

"The only essential thing is that this sign not be confused in his writing with that of his I, his d, etc.;

"3. the values of the written language system [**écriture**] are only based on their reciprocal oppositions within a defined system, comprised of a determinate number of letters. This characteristic, without being identical to the second, is closely tied to it because both depend on the first. The graphic sign being arbitrary, its form matters little, or rather, it only has importance in the limits imposed by the system; "4. the means of production of the sign is totally unimportant, for it is of no interest to the system (this also follows from the first characteristic). Whether I write the letters in white or in black, incised or in relief, with a pen or a chisel, is of no importance for their signification".(CLG: 165-6)

Now, Derrida (1976: 52), in his discussion of this passage, comments that "at the moment of explaining **phonic difference** as the condition of linguistic value ("from a material view point",) he [Saussure] must again borrow all his pedagogic resources from the example of writing". Nothing could be further from the truth. It seems to me that Derrida's seemingly provocative arguments have done more to limit the terms of the discussion rather than to promote alternative lines of inquiry. Elsewhere in CLG, Saussure more than amply demonstrates his ability to theorize phonic differences without recourse to the written language system. Saussure's point in the above passage is quite different. Nor does he assume the "naturally phonic essence of language", as Derrida (1976: 53) claims. Again, the key word which Saussure uses to relate the phonological and the graphological systems is 'comparison', as evidenced in the first paragraph of the above passage (see Lecture 1 and above). Given that **langue** and **écriture** are distinct systems of signs, then the distinctive values that are internal to the two systems may be compared. It is the very possibility of 'comparison' which allows for the translatability of the two systems. The values internal to one system may be used to selectively contextualize the values of the other in the process of transcoding from the one to the other.

Derrida claims that Saussure's conception of language is 'phonocentric' and founded on a 'metaphysics of presence'. This rests on the assumption that Saussure's term **langue** refers to language **per se.** I have already shown that this is not so. Instead, it refers to a strictly delimited domain of inquiry. Gayatry Spivak's translation of **langue** as 'language' simply blurs over this important distinction in the Saussurean discourse and, therefore, the specific distinctions Saussure makes. This does not change the fact that the original 'blurring' has been perpetrated by Derrida, who, in my view, has misread the Saussurean text.

The Semiotic Power of the Visual-Graphic Image

In my view, the problematic of *écriture* resides, for Saussure, in the semiotic power of the visual image. This gives rise to a curious paradox in Saussure's treatment of this problematic. Saussure does not simply recognize that *écriture* is a distinct system of signs based on the visual image. He also **implicitly** recognizes the transcoding potential of *écriture* with respect to *langue*. In other words, he recognizes that what is involved is a process of transcoding between a system of signs based on acoustic images and a system of signs based on visual-graphic images. This fact explains Saussure's constantly reiterated frustration at the distortions and pathologies which normative and prescriptive rules of orthography perform on the phonological system of a given language. The paradox lies in the way that Saussure's intuitive grasping of the semiotic power of the visual image does not lead him to develop or to suggest the need to develop a parallel and complementary theory of *écriture*. Saussure does not go beyond the general assertion that this is a distinct system of signs. His own methodological and theoretical priorities push him in quite a different direction.

There are two main issues at stake here. First, Saussure critiques the consequences of the notion that writing of the alphabetic kind conforms – or should conform – to the spoken language. This rests on the assumption that the letters of the alphabet decode the sounds of the language in a

relation of one-to-one correspondence. This presupposes that there exists a prior speech community sufficienty homogeneous in its speech practices that writing would represent these in a uniform way. In this sense, the imposition of a uniform standard of pronunciation on the basis of writing suppresses the heteroglossic diversity of phonetic practices which span the various dialects and subdialects – social and gegraphical – of a language. That is why, as Saussure points out, "The language system has then an oral tradition independent of writing, and fixed in an entirely different way" (CLG: 46). Saussure cites Bopp, Grimm and others as examples of those historical and comparative linguists who failed to distinguish clearly between sound and alphabet. In doing so, Saussure establishes an important principle which is both linguistic and political in its implications. That is, he sets out to deconstruct the normative and prescriptive rules of orthography whereby "the language system **[la langue]** appears regulated by a code" (CLG: 47). This has a number of consequences: (1) the sounds so derived from normative orthographic rules of pronunciation do not in actual fact correspond to the reality of the spoken language in all of its diversity. This has the dual effect of (1) imposing artificial standards of 'correct' pronunciation on speakers of diverse social and geographical provenance with the consequent suppression of their social diversity; and (2) suppressing the dynamic and independent evolution in historical time of the spoken language in all its diversity **idiosynchronic** diversity (CLG: 128; Thibault 1996: 27).

In this regard, Saussure responds to such normative principles by arguing, "That which fixes the pronunciation of a word is not its orthographic sound, [but] its history" (CLG: 53). It is in this sense that Saussure attacks normative orthographic models of speech as 'bizarre' and 'pathological' (CLG: 52-3). There has been considerable misunderstanding of this point, largely due to Derrida's misreading of Saussure's deconstruction of normative and prescriptive orthographic rules of speaking. Saussure's point is twofold. These normative rules cannot serve as the basis of a scientific theory of the spoken language system at the same time that they falsify the distinctively visual principles of organization of the written language system. It is important to be clear about this critically important point: Saussure is not attacking the legitimacy of studying the visual-graphic principles of organization of **écriture**. Rather, he is attacking the ways in which prescriptive and scientifically inaccurate orthographic norms are used as models of the spoken language and its 'correct' use. Saussure himself implies that this 'literary' model is controlled by the dominant and hegemonic social groups through their dictionaries, grammars, and schools (CLG: 47).

Second, Saussure does not claim that so called alphabetic writing systems are a direct transcription of the sounds of the spoken language. It is important to distinguish clearly between Saussure's critique of normative rules of orthography and the very different claim

that **langue** and **écriture** are two distinct systems of signs, each with their own semiological principles of organization. In my view, Derrida's critique of Saussure, paradoxically, rests on this first, normative assumption which forever stalks his own discourse. This has lead to a great deal of confusion as to the real significance of Saussure's discussion of writing. Importantly, Saussure makes an initial distinction between ideographic and alphabetic (syllabic, phonetic) writing systems (CLG: 47).

"There are only two systems of writing:

 The ideographic system, in which the word is represented by a sign which is unique and exterior to the sound of which it is composed. This sign is related to the whole of the word, and in this way, indirectly, to the idea which it expresses. The classic example of this system is Chinese writing.
 The system commonly called "phonetic", which aims to reproduce the sequence of sounds occurring in **parole**. Phonetic writing systems are

sometimes syllabic, sometimes alphabetic, that is to say, based on the irreducible elements of **parole**. (CLG: 47)

Having made this initial distinction, Saussure then shows that it is in fact an idealization of the facts. No writing system is a pure instance of one or the other of these two main types. Rather, there are, to varying degrees, mixtures of the ideographic and the phonetic in all writing systems, including the seemingly emblematic case of the Chinese ideographic system. In the case of Chinese, this fact means that dialectical differences in the spoken language are not suppressed in the written system: "the Chinese words from different dialects which correspond to the same idea are equally well incorporated into the same graphic sign" (CLG: 48). Clearly, this stands in marked contrast to the normative and prescriptive rules of orthography which suppress phonological diversity in the Western European tradition of pedagogical grammars. The ideographic nature of Chinese means that the writing system does not function to decode the spoken system. Rather, each visual-graphic signifier corresponds to a grammatical unit and indirectly to an 'idea', or, in other words, a semantic unit (Halliday 1985: 19). In actual fact, all natural languages combine to varying degrees principles from both types of writing systems.

As we shall see below, Saussure draws an important lesson from the Chinese example. The only purely phonetic writing system would be the designed systems such as the phonetic alphabet and other systems of transcription which are used by phoneticians and phonologists to transcribe speech sounds. Even these artificial writing systems have some kind of derived relationship to the writing systems of natural language. Here, the ideal would be what Saussure calls a "phonological alphabet" as opposed to "usual orthography" (CLG: 57). This brings me to a second, crucially important aspect of Saussure's argument. Speaking of the "question of reading", he observes:

"We read in two ways; the new or unknown word is spelled **[épelé]** letter by letter; but the usual and familiar word is taken in at a glance, independently of the letters which comprise it; the image of this word acquires for us an ideographic value. Here traditional orthography can reclaim its rights: it is useful to distinguish **tant** and **temps, et, est, ait, – du** and **dû, – il devait** and **ils devaient**, etc." (CLG: 57)

In drawing attention to the practices of reading, Saussure points out what had already been established experimentally by Cattel (1886) to the effect that readers normally process words as global-synthetic visual units rather than letter by letter. Importantly, the ideographic values assigned to the words are meaning- rather than sound-based. It is only a certain normative pedagogical tradition which teaches children to map 'correct' pronunciation onto the individual letters of which a word is composed. As Saussure points out (CLG: 47), children have already learned to speak before learning to write. This does not, however, imply a phonocentric metaphysic à la Derrida. Rather, in reading words as global visual units, readers directly construe grammatical units and semantic meanings in these. For an alternative view see, for example, Kress (1995: 14). They do not necessarily pass through some intermediate phonic stage before arriving at the meaning of the written sequence of graphemes. Having done so, they may then map a global-synthetic sound onto this unit of meaning as shown in Figure 1.

Graphemic		Phoneme
sequence		sequence
[[c + a + t] + [s]] ->	GRAMMATICAL-SEMANTIC	-> [/kaet/ + /s/]
	MEANING	

Figure 1: Mapping of global-synthetic sound pattern onto written word.

This is done on the basis of the global integration of all the modalities of linguistic semiosis in the brain of the individual (Lecture 1). In the first instance, the child has to learn to recognize the word **qua** grammatical-semantic unit rather than as a meaninless sequence of graphemes **per se.** This is necessary so that the child is able to map a global sequence of acoustic images onto this same unit of meaning so as to obtain an appropriate pronunciation, and in ways which does not, however, suppress dialectical diversity. This follows from the fact that the child has already internalized a global sound shape for the word in his or her prior experience of the spoken language.

Likewise, listeners do not interpret the meaning of a spoken word by decoding each phoneme separately as it is manifested in the linear and temporal unfolding of the phonic chain. Rather, the sound shape of the word as a whole is assigned a distinctive grammatical-semantic value. Saussure argues that **écriture** is a distinct system of signs. That is, it has its own distinctive (visual-graphic) resources for construing grammatical units and semantic meanings on the stratum of the signified. This is not dependent on the spoken system of **langue**. Rather, it is on the basis of the prior ideographic – grammatical and semantic – value readers assign to sequences of graphemes that allows them in turn to map global-synthetic sound shapes onto these on the basis of their previous internalization of the acoustic images of the spoken language system. In this way, they come to understand that a given sequence of acoustic images and a given sequence of visual-graphic images may have the same grammatical and conceptual value. It is the linear unfolding of phonic signifiers in time or visual-graphic signifiers in space (CLG: 103) constitutes the systemic basis whereby such global meanings are so mapped.

Saussure does not regard the visual semiotic as a transparent medium which simply reflects an outside world, or which unproblematically

'represents' the spoken language. Rather than a transparent medium leading to common understanding, Saussure understands the semiotic power of visual semiosis to transform, and hence to 'misrepresent' or 'distort'. That is, he recognizes the meaning-making potential of the visualgraphic modality of linguistic semiosis. But that is as far as he goes. Presumably, Saussure had guite enough problems to deal with in langue without taking on écriture as well. Saussure's undertheorized grasping of the semiotic power of visual semiosis contrasts with Derrida's silence on the specifically **visual** implications of the problematic of *écriture*. It seems to me that Derrida's metaphysical blindness on this point may be explained on the basis of his privileging of a notion of the written text as fixed, static, and as standing 'out of time'. This says more about the academic subculture to which Derrida belongs rather than the somewhat different problematic which Saussure confronted. Unlike Derrida, Saussure is not referring to written texts. Écriture does not refer to writing as a mode of textuality. Rather, it refers, as Saussure himself points out, to a distinct system of signs which is comparable to, though not identical to, langue (Lecture 1). Derrida, on the other hand, valorizes écriture as a specific mode of textuality. Saussure does not talk about written texts as such. For example, Derrida (1976: 32) argues that Saussure's notion of **écriture** as a system of signs precludes "symbolic" and "figurative" writing in which, presumably, the pictorial dimension is salient. But this miscontrues the notion of system, which is a de-contextualized system of differences or **potential** meanings. There is nothing in Saussure's account which says that actual uses of this potential in written texts may not use this potential for such figurative or other purposes. This would simply be a specific use of the meaning-making potential of the system of visualgraphic differences in *écriture*. The problematic that occupies Saussure is concerned, above all, with the transcoding potential of the visual-graphic signifiers that constitute the system of *écriture* and the problems this poses for an adequately conceived study of **langue**. He even suggests that the

problem is compounded by a general preference for visual impressions over acoustic impressions:

"For the majority of individuals, visual impressions are clearer and more lasting than acoustic impressions; for this reason they prefer the former. The graphic image ends up imposing itself at the expense of the sound". (CLG: 46-7)

This indicates Saussure's awareness of the problems posed by the monoperspectival and objectified visual perceptual field which is based on Newtonian space-time (see Lowe 1982: 14). It is the culture of the technologies of typography and photography. The perceptual field of this culture entailed the unilinear and objectified extrapolation of visual perception in typographic culture, which was the dominant mode. Saussure's social-semiological theory is part of a general shift towards a multi-perspectival and synchronic mode which is founded on difference. It is a topological rather than a typological mode, as his phonological theory, in particular, demonstrates (lecture 3). The technology which underlies this mode is the newly emergent electronic culture of the early decades of the twentieth century:

"We have said that the written word **[mot écrit]** tends to replace in our mind the spoken word **[mot parlé]**; this is true for both systems of writing, but this tendency is stronger in the first". (CLG: 48)

The following remarks on pronunciation, which occur at a parallel point in Engler's Critical Edition, further develop this argument as follows:

"The best indication of this erroneous conception is the meaning which unconsciously we give to the word **pronunciation** (= execution by the voice of a written sign as in music a note by an instrument). In fact, it is impossible to take the written word as the basis of linguistics; that would amount to restricting the object too much. The aim of the alphabet is to fix by conventional signs that which exists in **parole**".(Saussure/Engler 1967: 75)

There are two points to make here. First, Saussure's criticism of the notion of pronunciation as the vocal execution of a written sign. It is commonly assumed that pronunciation refers to the way the letters of the alphabet are spoken or are pronounced (section 2). That is, the alphabet is taken as the basis for acts of **parole** and, hence, for the study of **langue**. In actual fact, as Saussure points out, the alphabet is a means of writing down or transcoding through the resources of **écriture** the sounds which are heard in acts of **parole**. It is in this sense that the alphabet 'fixes' by conventional signs the words in **parole**. It uses the meaning-making potential of one system of values to selectively recontextualize the other system in the process of transcoding from one to the other. It is a mistake to see it as a guide to pronunciation. The 'substitution' of the written word for the spoken word obscures the nature of langue, which is necessarily accessed through **parole**. Written language is not simply spoken language in visual form. Indeed, most instances of writing, rather than being transcriptions of speech, have an independent existence. Nevertheless, an important point is missed as well. Instances of writing may be read aloud. That is, one aspect of the meaning potential of the graphemes of the written language system is to index one or more phonemes in the spoken language. This is by no means the only work that graphemes do, but it is an important and irrefutable dimension of their overall meaning potential. However, the relationship between grapheme and phoneme is not one-way in its effects. Just as graphemes may 'represent' phonemes, so, too, may phonemes 'represent' graphemes. This will be taken up and further developed below.

Secondly, Saussure claims that the purpose of the alphabet is to "fix by means of conventional signs that which exists in **parole**". In other words, graphemes do not index **langue**. Rather, they have the potential to index the phonological dimension of the spoken chain in acts of **parole**.

Saussure then proceeds to posit a relationship of "correspondence" between the systems of **langue** and **écriture**:

"However, it must not be forgotten that the spoken language system **[la langue parlée]** alone is the object of linguistics: we notice nothing abnormal in the history of unwritten language systems; on the contrary, a language system which has never been written constitutes the norm. But the influences of the written language on the spoken language are multiple (one is lead to certain choices), one only conserves the words which are often written, pronunciation is contaminated: sept ['seven'], cent ['hundred'], **Lefubure** for **Lefèvre.** They may be envisaged as a pathological side of the language system, but cannot be ignored. The written language and the spoken language: here again one of the correspondences of language, one of its double aspects: there is a duality of sign systems in the correspondence. This correspondence has had deplorable effects and still does. One can never disengage altogether from the written word". (Saussure/Engler 1967: 76)

The 'duality' Saussure speaks of refers to the fact that within a given language **langue** and **écriture** stand in complex relations of partial and overlapping complmentarity to each other. The 'pathological' and 'contaminatory' effects of writing which Saussure denounces have to do with the ways in which purely visual distinctions in the written system are taken as normative prescriptions for the pronunciation of the spoken language. Graphological distinctions which have value and hence a contextualizing relevance in writing are illegitimately transposed to speech on the mistaken assumption that speech sounds should conform to writing. The real point, on the other hand, is that graphological distinctions do not always or necessarily line up with phonological ones. The two systems have different contextualizing functions to perform in the different domains in which they are deployed. This brings us to the question of the 'correspondence' between the two.

Now, correspondence does not mean identity. The relationship between **langue** and **écriture** is not an externally derived one of analogy. The correspondence goes deeper. Saussure's discussion remains limited by his concern with objective similarities and dissimilarities between the two systems. Indeed, and given his privileging of **langue**, he places the emphasis on the dissimilarities. Consequently, Saussure tends to put to one side the deeper relationship of homology which unites **langue** and **écriture** "all along the range of work regarding them", to borrow Rossi Landi's (1977: 74) expression. Afterall, and in spite of the differences of signifying substance, **langue** and **écriture** are manifestations of the same overall language system. This is so in the sense that both the phonic and graphic orders of difference may be cross-coupled with all of the conceptual differences that are recognized in a given language system. This is not to deny the important lexicogrammatical and discourse-level differences between the two systems (Halliday 1985).

The best way to pinpoint the Saussurean problematic of **écriture** is to examine the specific examples which Saussure considers. Characteristically, Saussure provides an abundance of examples which he analyses. I shall consider a very small number of these in order to draw out a number of salient points. Saussure complains about "the multiplicity of signs for the same sound" (CLG: 50). More precisely, this means that the same phoneme may index different graphemes. Examples in English include: be, bee by, buy, bye in, inn night, knight see, sea to, too, two site, sight, cite bite, byte

Table 1: Examples of words illustrating principle 'same phoneme, differentgrapheme'.

Each of the sets of examples in Table 1 has an identical phonemic structure in the phonological system of English. In the graphological system of written English, the additional grapheme "**e**" in the written form of the word **bee** does not index a corresponding phonemic distinction in the spoken language. Examples such as these show that graphemes have distinctive values in the written system irrespective of whether it indexes a phonemic distinction or not in the spoken system (see McKintosh 1967: 101). Saussure gives parallel examples from French,

e.g.**tant** and **temps** (CLG: 57), – see also **tend**, **tan** – all of which have the same phonological shape, yet have differing graphological shapes. However, Saussure's preoccupation with the 'inadequacies' of the written language for representing the spoken language distracts him from exploring more fully the distinctive values of the graphological system and their specific functions. Distinctive values in graphology are established by **visual** differences (McKintosh 1967: 101; Uldall 1944). The graphological distinction between, say, **be** and **bee** in English does not reflect a corresponding phonological distinction. However, the visual basis of the distinction between these two written words serves particular contextualizing functions in the written medium. A purely phonetic writing system would not always permit salient distinctions to be made in the written language (Halliday 1985: 27-8), as the above examples show. The very different phonological shapes of, for example, **photograph**/**photographic**, along with many other examples in English, would, if represented in a purely phonetic writing system, obscure the close grammatical and semantic links between these items. That is, it is the visual-graphic likenesses of their respective written forms, rather than their phonological shape, which foregrounds their semantic relatedness. If the reader had to rely on phonetic information alone in order to interpret the grammatical-semantic significance of forms like these, then, and in the absence of important contextualizing cues supplied by the visual-graphic similarities among such forms, his or her task will be correspondingly harder. This shows the ways in which graphology is motivated by grammatical-semantic criteria.

Saussure took graphology to be secondary with respect to phonology in order to draw attention to the methodological confusion that arises from 'seeing' **langue** as if graphemes simply correspond to phonemes. In this Saussure is surely correct. However, this was at the cost of a full appreciation of graphology as a system of values in its own right. He fails to appreciate that the question of the 'correspondence' of a given grapheme to a given phoneme, while not irrelevant, is secondary with respect to the specifically visual dimension of linguistic semiosis in the written system. Phonemically, the examples adduced in Table 1 above illustrate a kind of phonological parallel to homonyms. Identical phonological structures have distinctive graphological values, depending on the context.

Saussure also refers to the contrary tendency. That is, the same grapheme may have a multiplicity of phonemic values. Some English examples are:

Graphem	Phonem	Sample
е	е	Token
/s/	cite	" C "
/k/	cat	"C"
/g/	get	"g"
/z/	gesture	"g"

Table 2: Examples of graphemes with a multiplicity of phonemic values.

The examples shown in Table 2, on the other hand, illustrate a different perspective on the same overall problem. In this case, the same grapheme indexes different phonemes. Angus McKintosh (1967: 103) provides an elegant and convincing solution to this problem. Just as a word like **cat** has a referent outside language, so, too, does the grapheme "**c**" have a referent outside the written language system. McKintosh shows how the grapheme "**c**" has a "potential phonic meaning" (1967: 105). The principle of value ensures that the grapheme "**c**" cannot substitute for the graphemes "**f**" or "**g**", each of which also have potential phonic meaning. Outside of some context we cannot know which phonic meaning "**c**" will have.

The point is not so much that graphemes are in disaccord with the phonemes of a given language system. Given the fact that two distinct systems of signs are involved, the relevant question is one of the contexts in which, for example, grapheme "**c**" occurs. Thus, in some contexts "**c**" indexes the phoneme /s/, as in the word **cite**; in other contexts it indexes the phoneme /k/, as in **cat**. The phonic meaning which a given grapheme indexes depends on the particular contexts in which it occurs. A further step, as McKintosh (1967: 107-8) points out, is to specify the particular exponent of the phoneme which is appropriate to that context. But that is a level of delicacy which will not be explored here.

It is also possible to talk about the graphological analog of synonyms such as "**realisation**" and "**realization**", or "**program**" and "**programme**". To say, for example, that "**realisation**" and "**realization**" 'mean the same' means no more than that the graphemic distinction between "**s**" and "**z**" has been neutralised in this particular graphological context. This precisely parallels the notion of neutralisation in phonological theory. A graphemic or phonemic distinction in the language is not necessarily significant in all localized contexts. The fact that the distinction exists in a given phonological or graphological system means that it is part of the value-producing potential of the spoken or written language system in question. However, this does not mean that the distinction is always significant, as the above examples show. For a useful discussion of this point see Mowatt and Dembowski (1965: 47-8).

Interestingly, the whole point of Derrida's homophonous pun **différance** (c.f. **différence**) depends on the view that graphology makes distinctions that phonology does not make. The pun is graphic, rather than phonic, so to speak. That is, it depends on the contrast between the graphemes "**a**" and "**e**" in French. Derrida's pun may be said to illustrate the principle of 'different writing, same sounding'.

Now, a careful consideration of Saussure's examples and related discussion, as well as those I have provided above, shows that this principle is reversible. The examples in Table 1 illustrate the principle of 'same sounding different writing'; those in Table 2 the principle of 'same writing different sounding'. The examples of graphemic neutralisation also illustrate a third principle, viz. 'same sounding different writing'. There are also forms which have identical phonemic and graphemic structures, but which have different meanings, according to the context in which the signifier occurs. Examples include: (1) the two potential meanings of, variously, **bank**, **pen**, **tank**, and so on. The fact that the graphic

signifier "**bank**", for example, has two potential signifieds – i.e., the place where money is deposited and the side of a river – or that "**pen**" can signify either the implement used for writing or the enclosure used for confining animals simply refers to the fact that the same sequence of phonemes or graphemes occurs in different contexts. The difference in signified is no more than a question of the different typical distributions of these graphemic or phonemic sequences. That is, their metaredundancy relations with which signifieds in which contexts (Thibault 1996: 213). Examples such as these illustrate the further principle of 'same sounding same writing different meaning'.

To complete the picture, so to speak, I have not so far mentioned the possibility of 'same writing different sounding'. Here we have the reverse of the principle of 'different writing same sounding' referred to above. Again, it is not difficult to find examples in English. These include: hegegomy / hegemony; economics / economics; ecology / ecology; neither / neither; kilometer / kilometer; ideology / ideology, and so on. What we have here is a kind of phonemic synonym. Thus, to say that the phonemic opposition between /g/ and /z/, as evidenced in the two alternative pronunciations in English of the word **hegemony**, means no more than that the phonemic distinction between /g/ and /z/ in this particular phonological context is neutralised. Again, I refer the reader to Mowatt and Dembowski (1965) for an illuminating discussion of this principle.

The principle of 'different writing same meaning' also holds. This is the standard case of synonymy, e.g., **child/infant.** Once again, global contextual factors may overide local differences to produce a local equivalence of signified.

The full range of possibilities which I have adduced above may be set out as follows:

- same writing different sounding different meaning
- same sounding different writing different meaning
- different writing same sounding same meaning
- different sounding same writing same meaning
- same writing same sounding different meaning
- different writing different sounding same meaning

Difference is not, then, an all-or-nothing category. It is not an ontological absolute for Saussure. Saussure's is a relational-contextual theory of how meanings are made. Neither signifier nor signified are pregiven entities. The semiological principle of value means that local relations of similarity and difference may or may not be significant in any given instance. These relations of similarity and difference constitute part of the global meaning potential of the system of pure values. Whether these are salient or significant on any given occasion of meaning-making depends on how they are locally contextualized in the making of a given sign.

The Relationship Between Écriture as Visual Semiotic and Langue as a Semiotic Based on Sound

An important function of all alphabetic writing systems is to 'represent' spoken language. Saussure claims that this is their sole function (CLG: 65). Doubtless, this is an overstatement, and must be seen in the context of the specific problems which Saussure sought to resolve. Specifically, Saussure draws attention to the widespread and mistaken assumption that speech sounds should conform to the writing system. In actual fact, as Saussure shows, alphabetic writing systems, which have the potential to 'represent' speech sounds in **parole**, do not, however, match up with the sounds of the language in any simple or direct way.

Nevertheless, there are two important aspects of writing which need to be accounted for. First, all alphabetic writing systems stand in some kind of relationship to the spoken language system. Secondly, all writing systems are systems of visual images. I shall shortly consider these two points in more detail. But first I should like to reflect briefly on the probable reasons why Saussure claims that the sole function of writing is to represent speech. In my view, there are two factors which underline this claim. The first is the implicit assumption that the visual signifiers of the written language system are a 'natural' means of representation of speech sounds. That is, the visual signifiers of writing are taken as standing in an unproblematic and transparent relationship to the sounds they are taken to represent. This view, which Saussure does NOT hold, assumes that written signifiers have no meaning-making potential in their own right.

The second factor concerns the specifically visual dimension of semiosis that a writing system necessarily entails. Clearly, this second factor contradicts the first. However, Saussure, as I have argued above, both comes up against the problems posed by the semiotic power of the visual image at the same time that he does not venture to theorize this. This leads to the paradoxical situation of a writing system that exists solely to 'represent' speech at the same time that the visual image is seen as 'distorting' the true nature of speech sounds and their study. How can this paradox be overcome? In my view, the solution to this lies in the recognition that: (1) just one of the functions of alphabetic writing systems is to transcode speech sounds; and (2) visual-graphic signifiers are an independent semiotic modality whose meaning-making potential can be theorized on the basis of criteria that pertain to visual semiosis. The myth of the transparency of the visual signifiers of writing is easily exploded when one considers the many ways in which the visual organization of the written page, for example, directly participates in the contextualization of the meanings which are made.

Saussure's phonological theory, I have shown, is based on **parole**. A writing system is a system of visual signifiers that are cross-coupled with the signifieds of a given language system. Like the acoustic image in **langue**, the visual image in **écriture** is a schematic category, rather than a specific instance of writing. Both the hand-joint-muscle-skin kinaesthesis and the visual kinaesthesis which are involved in any physical act of tracing a handwritten image onto a treated surface such as paper are secondary from the system point of view of **écriture**. These belong to the domain of the "perceptible image", which is the written analogue of **parole**, or what Saussure calls the **mot écrit.** This does not mean they are secondary from the perspective of any given act of writing. Graphology is the interface between the system of **écriture** and the bodily processes of hand-muscle-joint-skin kinaesthesis and visual kinaesthesis in the act of tracing handwritten images onto a treated surface.

Both **langue** and **écriture** cross-couple specific phenomenal-material processes and semiotic resources in acts of **parole** and acts of writing, respectively. These possibilities are schematized in Table 3 (available February 7).

Table 3 shows the essential complementarity of the systems of **langue** and **écriture**. Each is cross-coupled with its respective semiotic modality, bodily process, and perceptual system. The parallelism between the acoustic and the visual modalities of linguistic semiosis represents an extrapolation from the specific relationship which Saussure proposes between the five levels of **parole** in his discussion of the speech circuit. The analogy between the five levels of **parole** and what I shall propose as the five levels of the **mot écrit** will be further explored in lecture x. At this point, I shall now return to the specific problematic of the representation of **langue** by **écriture**. In Derrida's reading, Saussure's term 'representation' is taken to refer to the interstratal relationship of signification which is characteristic of the semiological or symbolic relation between signifier and signified (Thibault 1996: chap. 10). Thus, for Derrida, **écriture** is the signified of a signifier, **langue**, as shown in Figure 2:

Signified
'écriture'
Signifier
'langue'

Figure 2: Presumed interstratal relationship between speech and writing, according to Derrida.

This means that writing would be a second-order semiotic system in relation to speech. Now, if Derrida were right, then **écriture** would be a second-order semiotic which takes the first order semiotic of **langue** as its signifier, or its expression stratum, in the Hjelmslevian terminology (Hjelmslev 1969 [1943]). It would be a kind of connotative (second-order) semiotic which does not have its own expression stratum, but uses that of some other first-order system. Yet, Saussure says that **écriture** is a distinct system of signs which has its own expression stratum, i.e., its visual-graphic signifiers. There are two problems with Derrida's interpretation. First, Saussure criticises in no uncertain terms the logical absurdity of confusing speech and writing in the one object of study (see section 2). Secondly, Saussure does not at any stage use the term signification, or any other comparable term, to suggest that the relationship between **langue** and **écriture** is of this type. In my view, Saussure's use of

the term 'represent' to refer to this relationship must be interpreted in quite a different sense. I shall now turn my attention to this problem.

The first point to make is that Saussure is talking about a relationship between two distinct, though related, systems of signs, rather than between two distinct strata in the same system. A system – system relationship is not, therefore, of the same kind as the interstratal relationship between signifier and signified in the sign. Secondly, the relationship which Saussure postulates between **langue** and **écriture** is a one-way one *on the* same level of abstraction. The two strata of signifier and signified, on the other hand, represent two different levels of symbolic abstraction in a twoway or reciprocal relation which constitues the sign (CLG: 98-9). Thus, écriture represents langue, whereas Saussure does not suggest that the reverse might also be true. In any case, the essential point is that **langue** may be selectively instantiated by acts of writing. Thirdly, Saussure uses a variety of terms in addition to 'represent' to describe the relationship between the two systems. Aside from the term représenter (CLG: 45), these include terms such as figure (CLG: 32) and désigne (CLG: 165), which means 'to point out', 'indicate', 'mark out', 'designate', and 'refer to'. In my view, Saussure does not use these terms casually. Further, I do not believe that Saussure intends these terms to designate the semiological relationship of signification as referred to above. In spite of the profusion of terms, I suggest that these are all rough synonyms in Saussure's discourse of some still fairly inchoate notion of instantiation. This is so in the specific sense that the graphemes of the written language system have the potential to index quantifiable occurrences (instances) in **parole** of given classes of phonemes in **langue**.

Saussure is both exceedingly scrupulous and forever self-reflexive in his admittedly fluid and constantly developing metasemiological terminology (Thibault: 1996: chap. 2). That is in the nature of the semiological beast, as

things stood when Saussure delivered his pioneering lectures in Geneva. Quite simply, if Saussure had meant the relationship between **langue** and **écriture** to be an interstratal one, then he would have said so. But he does not. In any case, it is a logical absurdity, as Saussure himself points out, to confuse the two systems of signs in the one object of study or to think that signifiers from one system could signify signifieds from the other system in the same sign. Different criteria are required for the study of both. From the monomodal system

perspective, **langue** and **écriture** do not mix. However, this does not in anyway preclude the fact that speech and writing may be co-deployed in specific multimodal semiotic performances.

A written language system is a system of visual signifiers. This is a distinct system of signs precisely because it has meaning-making resources which are at least partially independent of the spoken language system. Saussure does not, then, hold to the Aristotelian view of the relationship between speech and writing, as expressed in *On Interpretation:*

"Words spoken are symbols or signs of affection or impressions of the soul; written words are the signs of words spoken". (Aristotle 1983: 115)

Saussure's recognition that **langue** and **écriture** are distinct systems of signs implicitly recognizes that the former cannot simply be derivative of or dependent upon the former. Saussure shows his awareness of the specifically visual dimension of semiosis in a number of ways, as shown in his discussion of reading (section 3).

Observations such as this point to the significance of specifically visual meanings in the written language. Such meanings are independent of the semiotic potential of the spoken language system. Nevertheless, Saussure's observations on the specifically visual dimension of semiosis

remain sporadic and undeveloped. The point is that a grapheme has a distinctive value in the written language system irrespective of whether it indexes a particular class of phoneme or not in the spoken system. That is, the question of the relationship of **écriture** to **langue** while important, is not necessarily primary. This leads to an important question, viz. How may the graphology of the written language system be studied along Saussurean lines?

The answer to this question may be divided into two parts. First, the graphemes of an alphabetic writing system such as English or French are visual images which are analogous in function to the phonemes of the spoken language system (Sefton 1988). Graphemes are the smallest scale units which exist on the stratum of the signifier in the written language (McKintosh 1967: 100). As such, they comprise a closed set of units which cannot be further subdividied into still smaller units. They are equivalent to what Hjelmslev (1969 [1943]: 71) has referred to as figurae on the stratum of the signifier. Figurae do not form signs. Instead, they are the smallest scale units out of which signs are formed. Figurae (phonemes or graphemes) should not be confused with the phonic or graphic terms which combine to produce specific parameters of articulation or its analogue in the hand-arm-eye-tool movements in the implementation of the act of (hand)writing. To illustrate this, consider the difference between the grapheme "s" in the word cats and then compare this with the contrast between the graphemes "s" and "c" in the words sell and cell. In the word cats, the grapheme "s" realizes the plural morpheme on the stratum of the signified. For this reason, it has a full-fledged status as a sign. That is, it realizes a minimal unit of grammatical meaning. Now, consider the role of the graphemes "s" and "c" in sell and cell. These two words have the same phonemic structure in the spoken language. However, the graphemic contrast between "s" and "c" indicates that these are two distinct words. Nevertheless, "s" and "c" do not, in this case, have morphemic status on

the stratum of the signified. They do not signify some minimal unit of grammatical meaning in the way "**s**" does in the word **cats**. For this reason, they have what McKintosh (1967: 98) calls submorphemic status: they do not have grammatical meaning, but they have distinctive value in the system of English graphology.

I would go further than does McKintosh. I take my cue for doing so from two sources. First, Hjelmslev points out that the analysis of figurae on the stratum of the signifier (Hjelmslev's expression plane) corresponds to the analysis of figurae on the stratum of the signified (Hjelmslev's content plane). In other words, minimal units on the stratum of the signifier (phonemes and graphemes) correspond to minimal units on the stratum of the signified. A grapheme is a visual signifier which has a distinctive value in the graphological system of a given written language system. What, then, is the signified of a grapheme? This brings me to my second source.

Petie Sefton (1988) has pointed out that graphic figurae (graphemes) realize or signify the letters of the alphabet in a given written language system. Thus, the letter 'A' is signified by the visual image (the grapheme) that corresponds to it. This is revealed by the way in which the graphemes of the written system are assigned names which correspond to the letters of the alphabet. For example, the grapheme "**a**" signifies the letter 'lower case aay'; the grapheme "**A**" the letter 'upper case aay'. That is, the visual image, or grapheme, "**a**" signifies the letter we refer to as 'lower case aay' in the English alphabet. The name so given to the visual image is, in other words, the signified of the grapheme in question. This means that the letters of the alphabet refer to the minimal units of value that are associated with the visual images of the writing system. Sefton also points out that there is a binary contrast between 'large' and 'small' which allows for the distinction between upper and lower case. A letter is, then, the name given to a submorphemic unit in the sense identified by McKintosh. The

relationship between a grapheme and the letter it signifies is, therefore, one of interstratal signification. This relationship is stratified in exactly the same one as that between signifier and signified in a full-fledged sign. A grapheme is a minimal signifier whose signified is a given letter in the alphabet, as shown in Figure 3.

'lower case	'upper case
aay'	aay'
"a"	" A "

Figure 3: Interstratal relationship between grapheme and letter of the alphabet which is signifies; lower and upper case variants.

A grapheme may best be seen as a sort of sub-signifying unit. In some environments, it may signify a particular grammatical category, as in the example of the plural morpheme referred to above. It may also signify a single grapheme word, as in the case of the grapheme "**a**" in the nominal group **a mouse.**

If graphemes are minimal signifying units, what, then, is their relationship to the spoken language system? McKintosh has argued that "just as the word **cat** (written or spoken) has some sort of referent outside **language**, so has the grapheme "**t**" some sort of referent outside **written language**" (1967: 103; emphasis in original). McKintosh refers to this second type of reference as the phonic reference of a grapheme. In my view, this relationship is not one of signification, in the Saussurean sense, but of indexicality. A grapheme has the potential to index one or more phonemes in the spoken language. Indexicality is a type of intrastratal instantiation. More precisely, a grapheme indexes, or has the potential to index, a quantifiable occurrence of a particular type-class of phoneme in the spoken language. It construes a quantifiable occurrence, in some specific context, of a more general type-class of phoneme. This means that we have here a species of instance – instance instantiation. For example, the grapheme "**c**" in the words **cite** and **cat** indexes, in these two graphological contexts, a quantifable occurrence of, respectively, the phonemes /s/ and /k/ whenever these two written words are, for example, read aloud. In each case, the grapheme "**c**" conforms to an arbitrary instance of the phonemic category in question. It is an 'arbitrary' instance in the sense that the grapheme "**c**" does not exhaust the phonemic type-categories in question. There are other instances of the grapheme "**c**" which instantiate these phonemic categories.

The discussion in the previous paragraph shows that both interstratal signification and intrastratal instantiation are involved in the making of graphic signs in the written language. A given occurrence of a grapheme is always an instantiation of a more schematic category. In this case, there is an intrastratal Schema-Instance instantiation relationship between the two. In this way, the degree of conformity of the instance to the criteria established by the schema is established.

In the case of phonic reference to a phoneme category in the spoken language, it is more appropriate to say that the grapheme instantiates a quantifiable occurrence in **parole** of a given type-category of phoneme. This presupposes an instance – instance relationship, i.e, from **mot écrit** to **parole**. This is so because indexicality is always context-specific. This accords with the fact that the 'translation' from grapheme to phoneme can only take place in relation to specific instances. By the same token, these necessarily presuppose the systems of graphological and phonological values of a given language system in order that grapheme and phoneme may be compared in the first place.

In both kinds of instantiation relations, the relationship between either graphological Schema and Instance or between graphemic instance and the phonemic category it instantiates is one-way, rather than two-way. That is, both the categorizing and the instantiation dimensions of this relationship go in the same direction. Let us illustrate this with a concrete example. I have selected the following three words: connect, communication, and can. In particular, the four occurrences of the graphemic type-category "c" instantiate the schematic criteria that are embodied in this Schema in spite of individual differences in case size, font type, degree of boldness, and so on. The schematic criteria embodied in "c" categorize these as more specific and detailed instances of the schematic category. Each of these concrete occurrences is a specific instantiation of the Schema. However, these two dimensions of categorization and instantiation embody a one-way judgement as to the degree of conformity of the instance to the schema. The reverse does not hold: the schema is not judged in relation to the instance. This process is presented in Figure 4.

Intrastratal Instantiation ---->

SCHEMA	INSTANCE
"C"	С
grapheme	graphemic
type-	instance
category	(allograph)

Figure 4: Schema-Instance relation of grapheme to allograph.

If, on the other hand, I read the word **connect** aloud, then the grapheme "**c**" in this word construes a quantifiable occurrence of the phoneme class /k/ in the phonemic structure of the spoken word in

question. That is, the grapheme construes an actual occurrence of the phonemic type-category in the act of **parole** when I articulate the phoneme /k/. In this case, the instantiation relation may be schematized as in Figure 5:

Intrastratal Instantiation ---->

SCHEMA	INSTANCE	QUANTIFIABLE
OF PHONEME	OF PHONEME	OCCURRENCE
IN PAROLE	IN PAROLE	OF PHONEME
		IN PAROLE
"C"	C	/k/

Figure 5: Phonemic instantiation of grapheme.

A given grapheme may also index a phonemic category in some other language. This occurs when the graphemes of a given language are used to provide approximations of the phonemic structure of words, etc. in another language. Tourist phrase books and bilingual dictionaries may use this technique.

Analogously, the graphemes of one language may be used to index the graphemes of some other language. The familiar case is that of transliteration. For example, the Devanaguri alphabet of Sanskrit may be transliterated into standard Latin characters, along with the addition of appropriate diacritical markings. Thus, (I speak, I say) is transliterated as **vadami.** In this way, a given grapheme may index a quantifiable occurrence of a graphemic category in some other language which uses a different writing system.

Finally, a given occurrence of a grapheme is an instantiation of a more schematic type-category. This is so irrespective of font type, case size, and

so on. The type-category is schematic to the instance according to exactly the same principles that apply to the relations between phonemes and allophones. However, there is no absolute standard which specifies what the characteristics of the graphemic schema are. It is difficult to specify an unmarked "t", for example, which is schematic to all instances, irrespective of whether these are in handwriting, typescript, and so on. Nevertheless, we have some sense of a more schematic category of 't'ness to which any given instance conforms to varying degrees. This in no way disallows the importance of contextual factors for deciding whether a given visual-graphic shape is a 't' or not.

Now, McKintosh's notion of phonic reference presupposes the transcoding of writing into speech, as shown in Figure 5. However, it must not be forgotten that the reverse can also apply. This was Saussure's particular starting point: writing 'represents' speech. That is, the graphological resources of a language may be used to transcode its phonological resources. In this case, the starting point for the Schema-Instance relation is the opposite of the above. The movement is from a phonological type category to a quantifiable occurrence of a graphemic type-category, as shown in Figure 6.

SCHEMA	INSTANCE	QUANTIFIABLE
OF GRAPHEME	OF GRAPHEME	OCCURRENCE
IN MOT ECRIT	IN MOT ECRIT	OF GRAPHEME
		IN MOT ECRIT
/k/	/k/	c, as in connection

Figure 6: Transcoding from phoneme to grapheme.

To sum up:

- a given instance of a grapheme is an instantiation of some more schematic type-category. The schema is the superordinate typecategory and the particular instance indicates either a certain quality or else degree of typicality of the schema. This allows for the wide variety of font types, handwriting styles, and other variables, whereby the schema is instantiated. Instantiations of grapheme categories, like their phonemic counterparts, embody notions of gradability and typicality. Judgements concerning the 'quality' of someone's handwriting embody schematic thinking of this kind. This means that particular instances are taken as 'resembling' the type-category to varying degrees. They are, in other words, iconic to the schema;
- The realization of some submorphemic unit on the stratum of the signified. In alphabetic writing systems such as English, this corresponds to the letters of the alphabet. The letter is the signified of a grapheme. There is an interstratal relationship of signification between the two;
- the signifying unit which results from this relationship has the potential to index quantifiable occurrences of: (i) particular phoneme categories in either the same language, or in some other language;
 (ii) grapheme categories in other languages.

These indexical relations are a form of intrastratal instantiation. Type (i) illustrates the principle that graphemes may be compared to phonemes in either the same or some other language system; type (ii) shows that graphemes in one language system can be compared with those in some other language system.

Conclusion

Most instances of writing are not representations of some prior speech event. Instead, they have a semiotically independent existence. The resources of visual semiosis which are embodied in the graphological system mean that writing is less tied to the here-and-now of speech (Halliday, 1985:). Increasingly, the visual semiotic resources of graphology are being exploited in relation to other aspects of visual semiosis.

Writing does, however, have resources for selectively transcoding speech as a textual record of some prior spoken event. These have been somewhat neglected in the research and include the grapheme, punctuation, and so on.

Writing can also be reenacted or performed as a speech event. In this case, the resources of the spoken language system transcode the written text. Thus, transcoding may go from writing to speech and from speech to writing.

The issue is not whether writing, incorrectly taken as a norm for pronunciation, adequately represents or corresponds to speech. The systems of graphology and phonology do not simply correspond to each other in any simple or direct way. Rather, their respective semiotic modalities function in relation to different contextual demands, in the process shaping the ways in which lexicogrammatical form is itself differentially deployed in these two modalities. But that is a question to be taken up elsewhere.

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