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*Formal scripts and meanings.  
A script-based approach to textual forms  
and their relevance towards interpretation*

I processi conoscitivi delle mente umana sono costituiti da riferimenti a modelli o schemi derivanti da esperienze precedenti. Questo principio, originato in ambito psicologico e antropologico, è stato ripreso da gran parte degli ambiti di ricerca di orientamento cognitivo, dalla sociologia, alla linguistica, agli studi sull'intelligenza artificiale. In ambito linguistico questo concetto sta alla base della *script theory* (Schank / Abelson 1977), che studia i meccanismi di produzione di senso tramite l'articolarsi di possibilità semantiche attivate da elementi di natura lessematica. Questa teoria, che si è dimostrata particolarmente efficace nello studio del comico (vedi Raskin 1985), si concentra esclusivamente sul livello semantico della comunicazione, non considerando invece la possibilità che anche caratteristiche di natura puramente formale del fenomeno comunicativo possano contribuire, anche se marginalmente, all'organizzazione del significato. L'ipotesi discussa in questo articolo è che la forma di un testo non è del tutto neutrale nei confronti del senso trasmesso, ma può orientarne i processi interpretativi. Data la presenza di determinate caratteristiche formali si attivano *formal scripts* in base ai quali è possibile sostanziare aspettative relative al senso generale del testo prima ancora di iniziarne il processo di lettura. Lo scopo di questo articolo è di fornire una solida base teorica a questa ipotesi, riprendendo i punti chiave della *script theory* (Schank / Abelson 1977) e della *genre analysis* (Swales 1990, 2004; Bhatia 1993, 2004), e conseguentemente, di fornire e discutere esempi eloquenti di *formal scripts*.

*1. The notion of 'frame of reference'*

In the last century, from the fields of psychology (Head 1920, Bartlett 1932) and anthropology (Bateson 1955) came the notion that knowledge is the result of cognitive processes based on re-cognition of experience: new experiences are measured and interpreted with reference to expectations drawn from old experiences, and consequently, no communicative move – either verbal or non-verbal – could be understood without reference to some frame of interpretation based on prior

experience. Since then, the idea of such ‘frame of reference’, or ‘model of coherence’, or “structure of expectation” (Tannen 1993) leading and biasing interpretation has been further developed within the domains of psychology (Rumelhart 1975, Abelson 1975) and anthropology (Frake 1977), but has also been introduced in fields like sociology (Goffman 1974), ethnography of speaking (Hymes 1974, Saville-Troike 1996, 2003), artificial intelligence (Minsky 1975, Schank / Abelson 1975), cognitive linguistics (Chafe 1977, Fillmore 1985, Lakoff 1987, Langacker 1987, 1991) and interactional sociolinguistics (Gumperz 1982, Schiffrin 1996). The concept has been phrased under various terminologies (see Tannen 1993, Ensink / Sauer 2003) but the most significant and commonly used are those of ‘frame’, ‘schema’ and ‘script’.

The various terms are hardly synonyms as they balance in different proportions two aspects common to the same idea, an interactive and a cognitive one:

- on an interactive level, such structures enable processes of ‘contextualization’ (Gumperz 1982) of the communicative activities, thus enabling language users to “identify the context of language activity, and to produce and recognise coherent sequences of (language) activities” (Ensink 2003: 63);
- on a cognitive level, they contain “prototypical general knowledge concerning [...] objects and events” (Ensink 2003: 63) enabling the representation and understanding of the world without the need of “complete data” (Ensink / Sauer 2003: 5), thus providing an explanation for the human capacity of considerable understanding from only a small amount of data (see Baddeley 1990, 1999).

Even if the two levels are interrelated and interdependent (Lee 1997: 340,<sup>1</sup> Ensink 2003: 65), differently oriented approaches, with a different focus, emphasize one over the other. So, sociology, anthropology and linguistic anthropology (Goffman 1974, Hymes 1974 and Gumperz 1982) privilege the interactive side, whereas artificial intelligence (Min-

<sup>1</sup> In fact, Lee notes that, on the one hand, interactive approaches are ultimately rooted in semiosis and concerned with the “interpretation of UTTERANCES” in context (1997: 340, emphasis in original), and, on the other, cognitive approaches hold a “strong sociocultural dimension” (1997: 340) to them.

sky 1975, Schank / Abelson 1977), cognitive psychology (Rumelhart 1975) and linguistic semantics (Chafe 1977 and Fillmore 1976, 1985) emphasize cognitive aspects, being more concerned with “the conceptual structures invoked by WORDS and the concepts they denote” (Lee 1997: 340).

Given the orientation of this paper, which falls within the boundaries of cognitive linguistics, we will focus on and discuss the latter kind of structure – and more specifically the concept of scripts, in its original theorization and in its further amplification – before introducing our hypothesis of formal scripts.

## 2. *Scripts*

The concept of script as theorized by Schank / Abelson (1975, 1977) and Abelson (1975) owes much to Quillian’s (1967) idea of ‘semantic nets’ – linking the meaning of a concept to its relation to other concepts – as well as to Minsky’s (1975) idea of ‘frames’ and Rumelhart’s (1975, 1977) definition of ‘schemata’ – both referring to structured collections of data from prior experience constituting a repertoire of knowledge through which to interpret reality.

Scripts are defined as structures of expectation that “handle stylized everyday situations” (Schank / Abelson 1977: 41) and which are meant to supply (or imply) the additional information about the expected sequence of events, the goals and the motivations behind such situations. Scripts are therefore responsible for filling in the obvious information that has been left out of a text (Schank / Abelson 1977: 41).

Scripts are conceptualized and visualized as a net of interrelated “slots and requirements about what can fill those slots [where] what is in one slot affects what can be in another” (Schank / Abelson 1977: 41). Such interrelatedness of the slots is so that, once a script is activated, its slots are filled by default if no explicit (i.e., lexicalized) information is provided about it.

Given a script for an event or an object, the slots refer not only to the characteristic features of this object or event, but also to *props*, *roles*, *pre-conditions*, *causes* and *results* related to it. For instance, the script for RESTAURANT describes items usually found in a restaurant, people

conventionally associated with that situation and their roles, and the preconditions, results and common scenes which are likely to be found in a restaurant. These items can be represented as follows:

- script: RESTAURANT
  - *props*: tables, menu, food, check, money, etc.
  - *roles*: customer, waiter, cook, cashier, owner, etc.
  - *entry conditions*: customer is hungry, customer has money, etc.
  - *results*: customer has less money, owner has more money, customer is not hungry, etc.
  - *scenes*:
    - entering → [...] <sup>2</sup>
    - ordering → [...]
    - eating → [...]
    - exiting → [...]

(adapted from Schank / Abelson 1977: 43-44)

With the activation of this script, it is possible to interpret utterances in which even significant information is missing. In fact, given a sentence like “John went to a restaurant. He asked the waitress for coq au vin. He paid the check and left” (Schank / Abelson 1977: 45) we intuitively fill the slot for *scenes* with the default filler ‘eating’, which is central to the meaning of the utterance, even if such action is not mentioned nor alluded to in the text.

Within a script there exists a hierarchical organization of the informative material according to a principle of relevance (or to a particular “perspective”,<sup>3</sup> Schank / Abelson 1977: 42). Some bits of information

<sup>2</sup> With this graphic sign we indicate that these entries, in their turn, imply other subscripts, each of which has its sets of slots (props, roles, actions, etc.) and default fillers which, for the sake of conciseness, we will not include here.

<sup>3</sup> “A script must be written from a particular role’s point of view. A customer sees a restaurant one way, a cook sees it another way” (Schank / Abelson 1977: 42). Hence, for a customer some ‘things’ within a restaurant situation are more relevant than others (like eating food and spending money, for instance), thus affecting the hierarchy of the entries for his/her RESTAURANT script, whereas something different applies to the case of the cook, who will have a differently ordered script (with more emphasis on cooking food and earning money). Still, for both perspectives there are entries which are in general more relevant than others, as is the case of ‘food’ rather than ‘neon sign’, or ‘credit card’, or ‘expiry date’, which are only remotely connected to the restaurant situation (respectively, to its appearance and to the method of payment).

are more relevant and easily available than others for the processing of a text. In the RESTAURANT script, for instance, the *prop* food is more relevant than the *prop* money, the *roles* customer and waiter are more relevant than those of owner or cashier, and the *scenes* ordering and eating are more relevant than entering and exiting.

A crucial point in the theory concerns the ‘conditions’ for the instantiation of a script. Scripts are activated or called for by “certain crucial items [which] are mentioned” (Schank / Abelson 1977: 38), which are termed ‘headers’ (1977: 46). Headers may be concepts (“the headers for the restaurant script are concepts having to do with hunger, restaurants, and so on in the context of a plan of action for getting fed”, Schank / Abelson 1977: 46), names or words in general. Further development of script theory within the field of linguistics – represented by semantic script theory (elaborated and effectively applied to humour analysis by Raskin 1981, 1985, Attardo 1994, Attardo, Hempelmann, Di Maio 2002) – concentrated exclusively on the lexical level of script activation and the lexematic quality of the headers, leaving the possible relation between textual formal aspects and the instantiation of a script uninvestigated.

Still recognizing the role and the priority of semantic scripts for cognitive processes, we claim the possibility of a different kind of script, which we will broadly indicate as ‘formal script’, instantiated by formal aspects of a text – either those remote from the semantic level (i.e., the text’s format and layout, or its pre-textual and contextual features) or those closer to the semantic level (i.e., syntactic organization and enunciative modality). The main assumption is that formal scripts are not neutral as to the processing and understanding of a text.

Our hypothesis of formal scripts recovers the idea of formal schemata (Carrell 1983, Nicholson 1998) – introduced and applied mainly in the domain of language acquisition and comprehension, and in a pedagogical perspective – where such schemata are defined as the “background knowledge of the rhetorical structures of different types of texts” (Carrell 1983: 81). In the next sections we will broaden the concept by referring also to genre analysis (Swales 1990, 2004; Bhatia 1993, 2004) and finally we will discuss the concept of formal script, using the analytic tools and terms provided by the script theory.

### 3. *Form and expectations*

The assumption substantiating our hypothesis is at the basis of the following claim by Nystrand (1986: 59, emphasis added):

Even before I open my mail I know *something* about it. Once the envelope is open, the *trail of clues which precedes the text* continues. My expectations are progressively set and fine-tuned by such details as logos, letterheads, typeface, and mode of production (handwritten, typed, or dittos) [...] *These many layers of context which envelop the text provide clues to the text's meaning.*

As Nystrand implies, in everyday experience we may easily observe that starting from formal features it is possible to distinguish text types or genres and subsequently, by recognizing the stereotyped and conventional ways of codifying a particular meaning, it is possible to develop general but fairly sound expectations as to the meaning itself, thus favouring hermeneutic paths which are appropriate to a given text type and inhibiting non-relevant interpretations. From the text format it is possible to distinguish an essay from a curriculum vitae, or an e-mail message from a web page, and we expect different meaning and develop interpretative processing accordingly (i.e., being prepared respectively to an argumentative – cohesive and coherent – sequencing of concepts rather than to a listing of possibly unrelated entries in the former case, or to a concise text about relatively simple aspects relevant to the present situation of the participants rather than to an articulated presentation of details possibly not dealing with the shared context of the participants, in the latter case). From text layout we distinguish an abstract from a letter (i.e., by the presence of a title rather than of a formulaic opening and closure – like “Dear x”, salutation forms and signature) thus orienting interpretation. From pre-textual or contextual elements, we can distinguish an essay from a short story (according to its positioning within a collection of essays or within a collection of short stories) and we develop expectations about the discursive nature of the former (possibly discussing concepts organized in causal sequences) or the narrative nature of the latter (describing a series of events organized around a chronological line). As we can see, the claim that form provides significant clues as to the text’s meaning is intuitively acceptable.

Before discussing in script theory terms how these inferential processes are developed, it is useful to provide our hypothesis with further theoretical basis and depth by introducing the main concepts of genre analysis (Swales 1990, 2004; Bhatia 1993, 2004). Even if the main focus of this research field – aimed at providing sound criteria and features for genre definition – is different from ours, it is nonetheless relevant to put our study into perspective by discussing its main claims and hypotheses.

#### 4. *Genre analysis*

Genre analysis in its original theorization (Swales 1990) defines genres as particular “communicative vehicles for the achievement of goals” (1990: 46), establishing as the main and privileged (1990: 52) criterion for classification (and therefore for genre recognition) the presence of a particular set of communicative purposes (either overt or undisclosed)<sup>4</sup> and indicating as corollary criteria the typical form and structure (1990: 52), rhetorical nature, and the mode or medium of text transmission (1990: 62). These ‘secondary’ criteria for Swales simply offer parameters for defining the prototypicality of a text in relation to a genre of reference.

A further expansion of the theory (Bhatia 1993, 2004) redefines the same criteria around two conceptual nodes: first, a genre is defined as being a “*recognizable* communicative event characterized by a set of communicative purpose(s)” (1993: 13, emphasis added); secondly, such recognizability depends on the fact that a genre is a “highly structured and *conventionalized* communicative event [hinging on] constraints on the allowable contributions in terms of intent, positioning, form and functional value” (1993: 14, emphasis added). Such constraints can be exploited (especially by specialist users, and within a specific discourse community) for special effect or private intentions, yet one “cannot break away from such constraints completely without being noticeably odd” (1993: 14) and therefore possibly becoming ineffective.

<sup>4</sup> In the case of political speeches, for instance, overt purposes are informative and polemical towards the opponents, whereas a covert purpose is the applause-generating one (Swales 1990: 47).

Thus, genre analysis implies a strong link between a specific set of purposes to be communicated (i.e., the meaning) and the most appropriate or conventional ‘formal’ constraints to fulfil that purpose. At this point, the most relevant contributions of genre analysis to the formal script hypothesis are the criteria provided for 1) the distinction of sub-genres within a given genre (Bhatia 2004), and 2) the analysis of “unfamiliar genres” (Bhatia 1993: 22).

1. Still maintaining that genres are defined in terms of communicative purposes, “these communicative purposes can be characterized at various levels of generalization” (Bhatia 2004: 59), which correspond to – from the most general to the most specific – the level of ‘generic values’, the level of ‘genre colony’, the level of genre followed by the various levels of sub-genres. The identification criteria for such levels (from the most to the least general) are defined in terms of:

- rhetorical acts, accounting for the basic form of the text (i.e., its being an argument, a narrative, a description, an explanation, or instructions (Bhatia 2004: 60);
- generic communicative purposes, accounting for the performative act accomplished through the text (i.e., promotion, evaluation, persuasion, or information (Bhatia 2004: 90);
- specific communicative purposes, accounting for the specificity of the message of the text (i.e., its being a book, an advertisement, a job application, etc.).

Sub-genres are then defined in terms of:

- the medium of their transmission;
- the object (or product, for promotional genres) of the message;
- the participants.

As we will see, these identification criteria are central in our discussion of formal script, especially in defining the various slots which are available when a formal script is activated.

2. The analysis of texts which are not easily recognized as belonging within a particular genre is done by “placing the given-text in a situational context” (Bhatia 1993: 22). To place into perspective the sample text and help its interpretation one needs to take into consideration factors like “the writer’s previous experience and background knowledge



of the specialist discipline as well as that of the communicative conventions typically associated with it” (Bhatia 1993: 22). Such a claim completes the spectrum of factors on which expectations and hermeneutic processes are based, which can be textual (depending on the linguistic material and its organization within a text), contextual (like the background knowledge of prototypical features and communicative conventions), or pre-textual (like the knowledge of the writer’s previous experience).

All three of these kinds of factors are accounted for in our hypothesis of formal scripts.

Having discussed the main concepts of genre analysis we may now better define the perspective of our hypothesis in contrastive terms. Indeed, if genre analysis is mainly focussed on understanding the way discourse is used in various domains and contexts, if it is mainly concerned with finding the defining features of genres, and if it hinges on the assumption that the felicitous transmission of a given meaning is connected to the use of an adequate textual vehicle displaying typical and conventional formal features (Bhatia 1993: 14), our hypothesis interprets the same assumption from a different angle: given a specific textual form, it is legitimate to expect a particular meaning, or, at least, a meaning within a given range of possibilities.<sup>5</sup> In other words, genre analysis is a top-down approach to the identification of a genre (i.e., from the genre realization to its defining features), whereas the hypothesis of formal scripts offers a bottom-up perspective moving from the recognition of specific textual features up to the identification of a peculiar kind of text usually connected to a limited range of meanings.

<sup>5</sup> However, the principle of mutual relatedness between form and meaning is neither stringent nor necessary. Swales (1990: 48) explicitly mentions the case of parody as a kind of genre which matches a mode and a form which are typical of a specific kind of meaning with a meaning which is completely inappropriate. But if parody, on the one hand, disproves the necessity of such a relation, on the other it significantly substantiates our hypothesis by demonstrating how a particular textual form – activating specific expectations as to its possible meaning – might mislead the reader towards an erroneous (if preliminary) interpretation.

## 5. *Formal scripts*

Having introduced the main concepts of genre analysis and of script theory, we have adequate analytic tools to provide a sound basis for the hypothesis of formal scripts. From script theory we recover the notion that:

- from an element within a text a script is activated, orienting interpretation;
- a script is visualized as a series of slots which are filled by default unless explicit information (about the filler) is provided by the text;
- slots and fillers are hierarchically organized: some are more relevant and available than others for the interpretation of the text.

The novelty of our hypothesis, in contrast with semantic script theory, is that the ‘element’ activating a script need not be lexicalized, but can be purely formal, like the text format, its layout, its visual organization, etc. Not depending on lexis, the criteria after which a formal script is activated depend on the combination of intra-textual and inter-textual principles, which are respectively:

1. the noticeability of some formal feature within the text;
2. the recognizeability of such features as typical of a group of texts.

For clarity’s sake, we will consider the following example: if (1) the most noticeable elements within a text are its shortness and the visual emphasis of its characters, and (2) these features are recognized as being typical of ads, consequently the formal script for ads is activated and we will process the sample text exhibiting such features as an ad.<sup>6</sup>

Not having a lexematic quality, the default fillers for a formal script cannot be indicated by specific lexical items, like in semantic scripts, but rather by a general indication of the value of the filler. We also extend the principle of the hierarchical organization of the elements of a script to encompass both semantic and formal scripts, claiming that semantic scripts (and their slot-filler pairs) are more relevant and necessary for grasping the specific and punctual meaning of a text, whereas formal scripts, if less relevant, are nonetheless useful as guidelines for the hermeneutic process.

<sup>6</sup> There might also be the case of ads not characterized by the noticeability and recognizeability of such formal features. In this case, the formal script for AD is not activated. The text can be recognized as an ad by pre-textual or contextual elements (i.e., still through formal scripts), or ultimately and definitely after the processing of its semantic level (i.e., through the activation of semantic scripts).

From genre analysis we recover the notion that:

- genre is defined in terms of its purpose;
- differences between genres and sub-genres are defined by specific identification criteria such as rhetorical acts, general communicative purposes, specific communicative purposes, participants and objects.

An important terminological specification to be introduced at this point is that for our theory we will use the term ‘text’ instead of ‘genre’, given the normative and more prescriptive quality of the latter (see also section 4) as opposed to the neutral and simply descriptive quality of the former.

From genre analysis we also take the principle that for the analysis of a text it is useful to take into consideration textual elements as well as pre-textual and contextual clues. According to these three levels (textual, contextual and pre-textual) we will organize our discussion in the next sections (5.1, 5.2, 5.3).

Starting from the main points outlined above, we claim that a formal script is activated by noticeable formal features which are recognizable as typical of a particular class of texts conventionally associated with a limited range of meanings. Such formal scripts accommodate for slots relying on their *general* and/or *specific communicative purposes*, their *rhetorical function*, their participants and therefore their *targeted audience*, and the *object* of the message. Together with these slots – modelled after genre analysis – other slots may be available, namely those about information: that is, about the *level of informativeness*, the *ordering* of information, and the *process* required for an adequate interpretation of the text. A formal script will be visualized as follows:

- *noticeable-recognizable feature*: [value]
  - *general communicative purpose*: [value]
  - *specific communicative purpose*: [value]
  - *rhetorical function*: [value]
  - *targeted audience*: [value]
  - *object*: [value]
  - *level of informativeness*: [value]
  - *ordering*: [value]
  - *process*: [value]

Some of these slots might be strongly interdependent; for instance, the *level of informativeness* may imply or require a particular *process*, or an *object* may imply a particular *audience*. Such connections will be indicated as follows:

- *level of informativeness*: [value]  $\Rightarrow$  *object* [value]
- or:
- *object*: [value]  $\Rightarrow$  *targeted audience*: [value]

The various slots need not always be ordered as in the model above. In fact, with the only exception of at least one of the slots referring to the purpose (i.e., *general communicative purpose*, *specific communicative purpose*, *rhetorical function*) always occupying the most relevant position, the relevance of the other slots varies depending on the particular formal script activated. As a final remark, we may add that not all the slots are always available except for those referring to the purpose. If the most noticeable formal features of a text are not recognizable in relation to a given communicative purpose, no formal script is activated.

In the following sections we will discuss the concept of formal scripts as they are activated at the three levels outlined above: textual, contextual and pre-textual.

## 6. *Formal scripts from textual features*

The most significant elements for the activation of formal scripts are those available at the textual level, that is, those which are evincible from the physical body of the text, from the visual presentation of its linguistic material (without/before processing its semantic level). We will open this section with the analysis of the most eminently formal aspects (i.e., simply referring to visual appearance, like text layout) to proceed to more structural ones (i.e., reflecting the organizing principles of a text, like visual density and cohesiveness) and then towards aspects which are more closely related to ‘meaning’ (semantic level).

### 6.1. *Text format*

At the highest level of abstraction from the semantic level, the most

noticeable features are those related to text format, that is, concerning the layout of the text. The first pair of features that characterize the visual appearance of the text – thus becoming parameters for a general distinction among texts depending on the predominance of one feature over the other – are visual emphasis (realized through font dimension and style) and text length. It is possible to distinguish texts relying on the visual quality of the linguistic material – despite / to the detriment of its length, which may consist of only one or very few lines – from texts characterized by a remarkable length of the linguistic material, that is, relying on quantitative aspects of its appearance (possibly with no particular emphasis on its visual parts).

Necessarily, such different texts activate different expectations. Let's consider how these expectations can be represented in script theory terms, starting from the case of visually emphasized texts:

- *noticeable feature*: visual emphasis ⇒
  - *general communicative purpose*: being visually appealing ⇒  
*rhetorical function*:
    - to attract the curiosity of the reader even at a first glance;
    - to impress the reader and elicit interest.

From these two rhetorical functions other inferences are activated, or in script theory terms, other slots are filled by default:

- *rhetorical function*: attract ⇒
  - *targeted audience*: an audience that (were it not for the visual appeal of the message) might not be specifically interested, nor have particular needs or expectations to be satisfied;
  - *specific communicative purpose*: elicit curiosity about ⇒
    - *object*: something to be noticed/considered:
      - ◆ a product;
      - ◆ another text (i.e., the case of titles, captions, texts pointing to other texts)
    - *process*: no particular mental expenditure required.
- rhetorical function: impress ⇒
  - *level of informativeness*: given the emphasis on relatively little lin-

guistic material → some bits of information are provided and emphasized, other bits of information (for the complete processing of meaning of the text) are possibly left out, and require ⇒ *process*:

- to be inferred (from background knowledge);
- to be recovered (from other texts, or from contextual knowledge).

In the case of visually emphasized texts the inferences activated constitute the formal script for PROMOTIONAL or ADVERTISING texts, which necessarily biases the hermeneutic process. In fact, the receiver will not be surprised to find the information general or incomplete, nor will he/she be upset at finding that the meaning of the text is not self-sufficient but just a reminder to other objects or texts: all these peculiarities are by default accounted for by the ADVERTISING formal script.

Remarkably different is the case of texts characterized by a considerable length of the linguistic material. Let's examine this aspect in script theory terms:

- *noticeable feature*: length ⇒
  - *general communicative purpose*: transmit a considerable amount of information ⇒
    - *specific communicative purpose*: being informative about ⇒
      - *object*: something to be mentally processed ⇒
        - *process*: requiring:
          - ◆ mental expenditure;
          - ◆ a certain amount of time;
    - *targeted audience*: (not being attracted by the visual appeal of the text) the audience already have some interest in the text and some expectation to be met about the content of the text;
    - *level of informativeness*: information is possibly complex/articulated but adequate to the transmission of the meaning (i.e., respecting the conversational maxims (Grice 1975) thus being true, exhaustive, relevant and clear).

The formal script activated on the basis of length as a noticeable feature is that for an INFORMATIVE text (like articles, essays, letters, reports, etc.).

Necessarily, the case of intermediary text types is also possible. In this case the instantiation of a formal script is strongly biased by pre-textual and contextual elements. For instance, a relatively short text with no visual emphasis appearing on the classified ads page of a newspaper will activate the formal script for ADVERTISING texts. The contextual element, here the placement, justifies the lack of the default slot-filler pair for the *rhetorical function* (i.e., attract – impress). Given the interrelatedness of slots, such absence entails a modification in the constellation of slots. The most significant changes concern the *communicative purpose*, of course, and also concern the *audience*, but not the level of *informativeness*. In script theory terms the changes will be visualized as follows:

- *noticeable feature*: contextual element: text in the place of classified ads ⇒
  - no need to attract curiosity and impress, ⇒
    - ◆ no need for emphasis ⇒
      - *targeted audience*: already interested and with expectations to be fulfilled;
      - *level of informativeness*: information incomplete<sup>7</sup> (quantitatively inadequate, by the relative shortness of the text).

On the other hand, a text of the same length in a different context, for instance within “the box containing some machine we have just bought” (Swales 1990: 88), will instead activate the formal script for instruction, that is, an INFORMATIVE text. In this case, the lack of length is due to the presence of the real object to which the text is referring: therefore, the description – necessary if the object is absent – becomes redundant, and consequently is omitted. In this case the script goes through minimal changes after its most noticeable formal feature is replaced by the contextual placement. The most significant (if slight) modification is for the slot about the *level of informativeness*: the information provided is not expected to be complex and articulated, but even if it is little, it is expected to be adequate as required by the situation (i.e., for the functioning and use of the said machine).

<sup>7</sup> Usually classified ads omit bits of information not considered strictly necessary, and also systematically use lexematic abbreviations.

## 6.2. Text layout

The next set of formal features which are particularly relevant – especially when applied to texts of a given length (thus already belonging to the formal script of INFORMATIVE texts) – are related to text layout and, more specifically, they refer to the degree of density of its appearance. With such criteria it is possible to distinguish between visually cohesive texts, consisting of ‘flowing’ linguistic material, and texts consisting of separate segments or blocks of linguistic material. The two types greatly differ especially as to the expectations about the *communicative purpose* and *information*. The first activates a script for a text linking data, the second for a text listing data. In script theory terms they are represented as follows:

- *noticeable feature*: visual cohesiveness (linking of data) ⇒
  - *general communicative purpose*: being informative by being read throughout ⇒
    - ◆ *process*: requiring:
      - mental expenditure;
      - certain amount of time;
    - *information*: sequencing of interrelated data, new information from/after old information ⇒
      - *ordering*: logical or chronological:
        - reasoning: from premises to conclusions (or cause – effects)
        - narration: from ‘before’ to ‘after’ (chronologically)
    - *rhetorical function*: to explain something (to take or lead the receiver from the beginning to the conclusion of the reasoning/narration)

The formal script activated by a text linking data is that for INFORMATIVE texts of an EXPLANATORY kind (texts of ‘causation’ and ‘problem-solution’ according to Meyer’s (1975) terminology).

The second kind of texts will activate a script like the following:

- *noticeable feature*: lack of visual cohesiveness (listing of data) ⇒
  - *general communicative purpose*: to be consulted/looked up (i.e., not meant to be read throughout) ⇒



- ◆ *process*:
  - not time consuming;
  - not requiring particular mental expenditure;
- *information*: combination of blocks of possibly unrelated bits of information ⇒
  - ◆ *ordering*: not necessarily logical or chronological (but possibly thematic, alphabetical, numerical, etc.);
- *rhetorical function*: to clearly outline or present data.

The formal script activated by a text listing data is that for INFORMATIVE texts of an EXPOSITORY kind (or ‘collections’ according to Meyer’s (1975) terminology), like manuals and dictionaries, curricula, instructions, etc. As a matter of fact, given such a formal script the receiver will hardly expect the text to be of a narrative kind.

### 6.3. *Early textual features*

The next set of formal features to instantiate formal scripts are to be found at what Swales (1990: 89) defines the “early textual” level. For early textual we intend those features which belong in the textual level but are noticeable independently from the meaning of the text, that is, they are evincible before getting to process the semantic level of a text (which, as we have discussed before, is rather the domain of semantic scripts). More specifically, such features are evident from the earliest stage of the reading process, and correspond to the mode of enunciation and syntactic organization. In the following sections we will see how the enunciative modality of a text (its being a discourse-type or a narrative type) and its syntax (whether paratactic or hypotactic) instantiate formal scripts.

#### 6.3.1. *Enunciation modality*

Usually, the opening lines or section of a text contain distinctive and significant clues as to its enunciative modality, that is, its being a discourse type text or a narration (Benveniste 1966). Discursive texts are

characterized by the use of the present tense and refer to a shared context between the participants, whereas narrations are usually characterized by the past tense and refer to contexts which are removed from the experience of the participants, either of a fictive (narrative genres) or non-fictive kind (news, reports, etc.).

The formal script for a DISCURSIVE text will be visualized as follows:

- *noticeable features*: present tense, first and second person pronouns, reference to a shared context ⇒
  - *specific communicative purpose*: discussion or description of a state of affairs (either present or absolute, i.e., unrelated to chronological factors);
  - *targeted audience*: having contextual knowledge ⇒
    - *process*: active:
      - response to a stimulus;
      - negotiation of meaning;
      - mental expenditure;
  - *information*: relevant to and dependent on the shared context of the participants ⇒
    - *object*: something (an event, an object, a state) directly dealing with day-to-day experience, possibly open to the audience's response.

With the activation of such a formal script the receiver expects his/her own role to be relevant in the definition of meaning, which may depend on his/her response to the stimuli provided in the text. Also, a text activating this formal script may legitimately be expected to have some illocutionary force (i.e., inspiring action to take place), as in the case of instructions, manuals and, in most cases, business communication texts.

A NARRATIVE formal script is represented as follows:

- *noticeable features*: past tense, third person pronouns, context removed from present experience;
  - *specific communicative purpose*: to narrate or report (past) events ⇒
    - *ordering*: events hinging on a chronological axis;
  - *targeted audience*: having no specific contextual knowledge ⇒

- *process*: passive: the audience is presented with a sequence of events ⇒
  - ◆ no/little responsibility in the negotiation of meaning;
  - ◆ no/little mental expenditure;
- *information*: something (object, state, event) fixed, concluded (removed in time, or in space) and independent from the audience's response.

With texts activating such a formal script the receiver expects to have a minimal role or, at least, less responsibility in the hermeneutic process, and this is eminently the case of literary texts in prose, but also of non-fictional stories, news reports, etc.

### 6.3.2. Syntactic structures

Other significant features connected to formal scripts are to be found in the syntactic organization of a text, which may be hypotactic or paratactic. The formal scripts activated in relation to either case are different. The script for the former can be visualized as follows:

- *noticeable feature*: hypotaxis ⇒
  - *general communicative purpose*: discuss in details and be exhaustive ⇒
    - ◆ *rhetorical function*: to analyse and to explain:
      - *information*: articulated (exploiting the conversational maxims of quantity and relevance): little (if anything) is left to be inferred ⇒
        - *ordering*: new bits of information are contextualized and connected to the rest of the informative material in the text ⇒
          - ◆ *object*: something (possibly) complex, not obvious nor plain to comprehension, (something to be learned, or studied) ⇒
            - *process*: mental expenditure;
    - ◆ *targeted audience*: already having background and possibly domain specific knowledge, and specific interests and expectations to be fulfilled.

Such features activate the formal script for SPECIALIZED texts, texts based on dense information and complex interconnectedness of the informative bits in a coherent whole, focused on exhaustiveness rather than on the visual appeal and aesthetic value of the text.

The formal script for texts with a paratactic structure may be visualized as follows:

- *noticeable feature*: parataxis ⇒
  - *general communicative purpose*: discuss or present the meaning in a simple way ⇒
    - ◆ *rhetorical function*: to inform, to describe ⇒
      - *information*: non articulated (hinging on the conversational maxim of quality and manner):
        - ◆ not needing too many details to be processed, leaving out bits of information easily inferrable;
        - ◆ (possibly) hinging on background or contextual knowledge;
      - *ordering*: sequencing of non-problematic bits of information (not needing a particular emphasis of their interconnectedness with other bits of information in the text to be meaningful);
    - *object*: something not complex, to be reported or described, rather than speculated about ⇒
      - *process*: no (particular) mental expenditure.
    - *targeted audience*: having generic background knowledge, and no (or less) particular needs and expectations to be fulfilled.

Such features identify the formal script for NON-SPECIALIZED or GENERIC informative texts, like newspaper articles, reports, letters, etc.

### 7. Pre-textually and contextually activated formal scripts

It is tempting at this point to try and expand our hypothesis so as to include other textual elements like register, style, rhetorical organization, and all those aspects which according to traditional rhetoric are to be considered as formal. Yet, having all of these categories to do with

the semantic level of the text rather than its form, they lie completely outside the scope of our analysis.

It is instead more relevant to discuss formal scripts activated at a pre-textual or contextual level.

Pre-textual are those elements which may bias the interpretation of a text though being completely external to it, that is, lying outside its linguistic material. Probably the most common instance of pre-textual knowledge influencing interpretation is the case of the knowledge of an author's prior experience and production (Bhatia 1993: 22). Presupposing a certain coherence and typicality of an author's production (which is not necessarily given), in the presence of a text by a specific author a formal script may be activated which is modelled by analogy on the most typical texts by the same author. In other words, if we know that a text is authored by Wittgenstein, and we know the author to usually write texts which are INFORMATIVE, DISCURSIVE and SPECIALIZED, and moreover philosophical in orientation, and thematically dealing with the relationship between language and logic, we hardly expect anything completely different from the same author, thus the formal scripts for INFORMATIVE, DISCURSIVE and SPECIALIZED text are always available in processing Wittgenstein's writings.

Contextual are those features linking a text to other texts and to the context of its delivery. Contextual features relevant to the concept of formal script are the *placement* of a text within a group of other texts (constituting a macro-text).

The placement of a text within a macro-text activates a formal script based on the assumption of thematic coherence or orientation within a collection of texts. It is therefore sound to expect to find an essay within a collection of essays (INFORMATIVE and SPECIALIZED texts) – or, more properly, an essay on linguistics within a collection of essays on linguistics – or to expect a short story within a collection of short stories (NARRATIVE texts), or to expect an ad within the classified page of a newspaper (containing PROMOTIONAL-ADVERTISING texts). It might be objected at this point that there are texts which are collections not obeying to any principle of thematic coherence, namely newspapers and magazines, where articles on different subjects coalesce on the same pages together with completely different texts like advertisements, graphs, horoscopes, etc. As a counterargument, we could claim that a

formal script may be activated even in this latter case because of the typical or conventional organization and structure of such macro-texts. For instance, the contextual *placement* of an article within such a macro-text may activate expectations as to its content: one probably expects an article in the first pages of a newspaper to be a text having as *object* the general or local news of the day, whereas we would hardly expect to find in the same pages a text having as *object* weekend entertainment, or business or sports events – unless these *objects* are relevant as news of the day (e.g., breaking a world record) – and certainly will not expect a text about community announcements, movie and television programs, or obituaries, which are usually relegated to the final section of such highly conventionally structured macro-texts.

### 8. *Conclusion*

In this article we have discussed the role of peculiar formal aspects as guidelines towards interpretation, a concept rarely dealt with by cognitive sciences and even more rarely considered by linguistic theories, more focussed on the semantic aspects of communicative phenomena, even if relying on the same assumptions at the basis of our hypothesis.

Linguistically oriented research concentrates on meaning coming from words and privileges the analysis of the semantic level of the text. Undoubtedly, the semantic script theory has developed significant analytical tools for studying the activation of meaning starting from lexicalized elements. But a text is more than its semantic content: in fact, the textual realization of content necessarily implies some ‘formal’ manifestation. The formal aspects commonly taken into consideration are register, style and text-patterning, but these features are not eminently formal in that they are all realized at the semantic level, that is, through lexematic elements. Genre analysis has introduced the possibility of formal features as criteria for genre recognition, especially for the prototypicality (Swales 1990) of a text within a given genre, yet without providing a theoretical discussion to substantiate the assumption. Our hypothesis of formal scripts is explicitly meant to fill this methodological gap, combining the key concepts and relevant ideas of genre analysis and script theory. The main assumption is that there are texts with par-

ticular formal features which are conventionally recognized as more adequate than others for the transmission of specific meanings. As a matter of fact, from their form we recognize ads even before process their content, or newspaper articles even when taken out of their usual placement (i.e., even when photocopied), and we are also able to recognize at a first glance a curriculum vitae from the accompanying letter (or job application) even if they come in the same envelope. On the same basis we can define a text like Wittgenstein's *Tractatus Logico-philosophicus* as a non-prototypical philosophical essay, it being organized in (and visually noticeable for) short and progressively numbered blocks of linguistic material rather than being divided into chapters and sections with titles, as a typical essay is expected to be. The concept of formal script discussed in this paper is meant to account for the relation existing between the text's form and its hermeneutic processing, claiming that the latter is biased and oriented by the former. Our theory maintains that formal features like text format, layout, syntactic structure and enunciative modality influence interpretation. Formal scripts, in fact, contain slots and default fillers giving a general orientation as to the text's *general and specific communicative purpose, rhetorical function, object, targeted audience, level of informativeness* and possibly also *ordering* criteria for the information presented.

It is precisely through the activation of formal scripts that most verbal and non-verbal communication is initialized. This is especially relevant in the case of conventional and verbal *bona-fide* communication (hinging on the truth, relevance and clarity of the message), in which the recognition of such scripts facilitates the transmission and the processing of meaning. But also less conventional and non-*bona-fide* verbal communication (not hinging on the truth, relevance and clarity of the message, as in the case of humour) depends primarily on the instantiation of formal scripts: parodic or spoof texts, for example, work only when a specific formal script is activated, thus 'setting' expectations, especially about the communicative purpose and object of the exchange, and initiating a specific hermeneutic path which is ultimately falsified by a purpose and an object resulting highly inappropriate to the formal vehicle of their transmission. This is a further confirmation of the non-neutrality of the text form towards its interpretation, and the principle of formal scripts, integrated by our hypothesis, offers a method and tools to account for it.

## References

- Abelson, Robert P., 1975, "Concepts for Representing Mundane Reality in Plans". In: Bobrow, Daniel / Collins, Allan (eds), *Representation and understanding: studies in cognitive science*, New York, Academic Press: 273-309.
- Attardo, Salvatore, 1994, *Linguistic Theories of Humor*, Berlin / New York, Mouton de Gruyter.
- Attardo, Salvatore, 2001, *Humorous Texts: A Semantic and Pragmatic Analysis*, Berlin / New York, Mouton de Gruyter.
- Attardo, Salvatore / Hempelmann, Christian F. / Di Maio, Sara, 2002, "Script Oppositions and Logical Mechanisms: Modeling Incongruities and Their Resolutions". *HUMOUR* 15-1. 3-46.
- Baddeley, Alan, 1990, *Human Memory. Theory and Practice*, Hove / London / Hillsdale, Lawrence Erlbaum.
- Baddeley, Alan, 1999, *Essentials of Human Memory*, Hove, Psychology Press.
- Bartlett, Frederick C., 1932, *Remembering*, Cambridge, Cambridge University Press.
- Bateson, Gregory, 1955, "A Theory of Play and Fantasy". *Psychiatric Research Reports* 2: 39-51.
- Benveniste, Emile, 1966, *Problèmes de linguistique générale*, Paris, Gallimard.
- Bhatia, Vijay K., 1993, *Analysing Genre. Language Use in Professional Settings*, London / New York, Longman.
- Bhatia, Vijay K., 2004, *Worlds of Written Discourse. A Genre-based View*, London / New York, Continuum.
- Carrell, Patricia L., 1983, "Some Issues in Studying the Role of Schemata, or Background Knowledge, in Second Language Comprehension". *Reading Foreign Language* 1: 81-92.
- Chafe, Wallace L., 1977, "Creativity in Verbalization and Its Implications for the Nature of Stored Knowledge". In: Freedle, Roy O. (ed), *Discourse Production and Comprehension*, Norwood, NJ, Ablex: 41-55.
- Ensink, Titus, 2003, "Transformational Frames. Interpretative Consequences of Frame Shifts and Frame Embeddings". In: Ensink, Titus / Sauer, Christopher (eds), *Framing and Perspectivising in Discourse*. Amsterdam / Philadelphia, John Benjamins: 63-90.
- Ensink, Titus / Sauer, Christopher (eds), 2003, *Framing and Perspectivising in Discourse*, Amsterdam / Philadelphia, John Benjamins.



- Fillmore, Charles J., 1976, "The Need for a Frame Semantics within Linguistics". *Statistical Methods in Linguistics*: 5-29.
- Fillmore, Charles J., 1985, "Frames and the Semantics of Understanding". In: Raskin, Victor (ed), *Quaderni di Semantica* VI/2: 222-254.
- Frake, Charles O., 1977, "Plying Frames Can Be Dangerous: Some Reflections on Methodology in Cognitive Anthropology", *The Quarterly Newsletter of the Comparative Human Cognition* 1: 1-7.
- Goffman, Erving, 1974, *Frame Analysis. An Essay on the Organization of Experience*, New York: Harper & Row.
- Grice, Paul H., 1975, "Logic and Conversation". In: Cole, Peter / Morgan, Jerry (eds), *Syntax and Semantics III*, New York, Academic: 41-59.
- Gumperz, John J., 1982, *Discourse Strategies*, Cambridge, Cambridge University Press.
- Head, Henry, 1920, *Studies in Neurology*, New York, Oxford University Press.
- Hymes, Dell, 1974, "Ways of Speaking". In: Bauman, Richard / Sherzer, Joel (eds), *Exploration in the Ethnography of Speaking*, Cambridge, Cambridge University Press: 433-451.
- Lakoff, George, 1987, *Women, Fire, and Dangerous Things*, Chicago, Chicago University Press.
- Langacker, Ronald, 1987, *Foundations of Cognitive Grammar. Theoretical Prerequisites. Volume 1*. Stanford, Stanford University Press.
- Langacker, Ronald, 1991, *Foundations of Cognitive Grammar. Practical Applications. Volume 2*. Stanford, Stanford University Press.
- Lee, David A., 1997, "Frame Conflicts and Competing Construals in Family Argument". *Journal of Pragmatics* 27: 339-360.
- Meyer, Bonnie J., 1975, *The Organization of Prose and Its Effect on Recall*, New York, North Holland.
- Minsky, Marvin, 1975, "A Framework for Representing Knowledge". In: Winston, Patrick H. (ed), *The Psychology of Computer Vision*, New York, McGraw Hill: 211-277.
- Nicholson, James G., 1998, "The Role of Formal Schemata in the Identification and Comprehension of Genre-Based Text". At [http://www.surrey.ac.uk/AL-RG/dissertations/Nicholson\\_J\\_1998.html](http://www.surrey.ac.uk/AL-RG/dissertations/Nicholson_J_1998.html)
- Nystrand, Martin, 1986, *The Structure of Written Communication. Studies in Reciprocity Between Writers and Readers*, Orlando FL, Academic Press Inc.
- Quillian, Ross M., 1967, "Word Concepts: A Theory and Simulation of Some Basic Semantic Capabilities", *Behavioral Science* 12: 410-430.

- Raskin, Victor, 1981, "Script-Based Lexicon", *Quaderni di Semantica* 2-1: 25-34.
- Raskin, Victor, 1985, *Semantic Mechanisms of Humor*, Dordrecht / Boston / Lancaster, Reidel.
- Rumelhart, David E., 1975, "Notes on a Schema for Stories". In: Bobrow, Daniel / Collins, Allan (eds), *Representation and Understanding: Studies in Cognitive Science*, New York, Academic Press: 185-210.
- Rumelhart, David E., 1977, "Toward an Interactive Model of Reading". In: Dornic, Stanislav (ed), *Attention and Performance*, Hillsdale NJ, Erlbaum, Vol 6: 573-603.
- Saville-Troike, Muriel, 1996, "The Ethnography of Communication". In: McKay, Sandra L. / Hornberger, Nancy H. (eds), *Sociolinguistics and Language Teaching*, Cambridge, Cambridge University Press: 351-382.
- Saville-Troike, Muriel, 2003, "The Analysis of Communicative Events", *The Ethnography of Communication*. Oxford, Blackwell: 88-143.
- Schank, Roger C. / Abelson, Robert P., 1975, "Scripts, Plans and Knowledge", *Proceedings of IJCAI (International Joint Conference on Artificial Intelligence)* 4: 151-157.
- Schank, Roger C., / Abelson, Robert P., 1977, *Scripts, Plans, Goals, and Understanding: An Inquiry into Human Knowledge Structures*, Hillsdale NJ, Lawrence Erlbaum.
- Schiffrin, Deborah, 1996, "Interactional Sociolinguistics". In: McKay, Sandra L. / Hornberger Nancy H. (eds), *Sociolinguistics and Language Teaching*, Cambridge, Cambridge University Press: 307-328.
- Swales, John M., 1990, *Genre Analysis. English in Academic and Research Settings*, Cambridge, Cambridge University Press.
- Swales, John M., 2004, *Research Genres: Explorations and Applications*, Cambridge, Cambridge University Press.
- Tannen, Deborah, 1993, *Framing in Discourse*, New York / Oxford, Oxford University Press.