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## Re-reading the script: a discursive appraisal of the use of the 'schema' in cognitive poetics <sup>1</sup>

Daniel Allington University of Stirling, UK

#### **Introduction: cognitive script theory**

Certain theories of cognition assume that it is possible, on the semantic level, to take for granted what, in day-to-day life, is frequently in doubt – the meanings of words, the nature of things, the right way to behave – seeming to imply that conflict and uncertainty happen only when cognition gets bogged down in the unfortunate business of social interaction. By contrast, I would claim, with Shotter (1991:Endnote 2), "that what are thought of as cognitive *processes* are in fact themselves *products* of essentially sociohistorical political processes, and that the professional hegemony of cognitive psychology prevents the study of this fact." On this more radical view, social phenomena such as disagreement and misunderstanding – not to mention power relations, institutions, ideology, etc – are seen to pervade and structure every level of thought. Rather than attempt to separate the cognitive and the social, then, this paper will examine one possible way to study the two together as *discourse*. In this case, the discourse investigated takes the form of two stylistic analyses of literary texts.

One cognitive psychological idea that has had a great influence on stylistics is the theory, originally developed by Schank and Abelson (1977), that, for the purposes of text comprehension and other high-level processing tasks, the brain retrieves knowledge from long-term memory in the organised form of scripts or schemata<sup>2</sup>. These may contain knowledge of the real world (Habel 1986; Muske 1990; Cook 1994; Stockwell 2002) or of literature itself, for example governing readerly expectations of certain genres (Cook 1994; Semino 2001) or even giving structure to actual novels, poems, songs, and films (Mills 1995; Steen 2002). Jeffries (2001) goes against the grain by arguing that the scripts with which a given reader is familiar will vary greatly due to sociological factors, but still follows the assumption, common to all theorists mentioned thus far in this paragraph, that this knowledge is used in unobservable inner mental processes. Edwards (1997), on the other hand, puts forward a discursive theory of the script, using the term "script formulation" to refer to a way of speaking or thinking, rather than to a hypothetical mental structure.

The restaurant script is the most famous example in cognitive script theory. It has been re-worked so many times as almost to have become public intellectual property, but it was originally formulated by Schank and Abelson (1977:43-44), whose version consists of four *scenes* (note the continuation of the theatrical metaphor suggested by "script") – "Entering", "Ordering", "Eating", and "Exiting" – each of which is broken down into a series of what appear, though expressed in the rather forbidding idiom of Conceptual Dependency, to be stage directions:

Scene 3: Eating
C ATRANS F to W
W ATRANS F to S
S INGEST F

Roughly translated into English, this corresponds to "cook gives food to waiter, waiter gives food to customer, customer eats food." Though the main assumption behind the theory (that human thought and behaviour must consist in the execution of computer programs by something like a central processing unit within the brain) no longer enjoys the universal support of cognitive scientists, there would seem to be nothing strange (and this is a point to which I will be returning) in saying that one *knows* that, when one is a customer in a restaurant, one enters, one is seated, one peruses the menu, one orders, one consumes, one asks for the bill, one pays, one rises, and one leaves. Of course, there are a great many other things that people do in restaurants, but, within cognitive script theory, this is explained in terms of the brain's purported ability to execute multiple programs simultaneously. If, therefore, one gets drunk, complains about the service, accepts a proposal of marriage, answers one's mobile telephone, attempts a seduction, dramatically breaks off relations with one's dining partner, conducts a business meeting, writes poetry, or talks loudly about one's holidays, this involves the intersection of the restaurant script with other scripts: the intoxication script, the complaint script, etc.

Many different definitions of what a cognitive script should consist of have been put forward. Schank and Abelson's (1977:38) original definition of a script is "a standard event sequence", which Cook (1994:11) broadens so that scripts are "mental representations of typical instances" - whether a script must consist of a causal chain of actions is therefore a matter of controversy, but "standard" and "typical" are fairly close synonyms here. What interests Schank and Abelson (1977) is the possibility that readers might use scripts to infer details that are not explicitly stated in texts, though subsequent theorists have engaged in speculation as to how scripts might be involved in a wider range of phenomena. Such conjectures have provoked a great deal of interest in stylistics (which, as Weber [1996] argues, increasingly attempts to bring notions of context and the reader into the analysis of text), but they raise as many questions as they answer: for example, while Stockwell (2002:76) defines "the ground of schema poetics" as the attempt to decide "which bits of context are used [by readers] and which are not", it has to be noted that cognitive script theory has nothing conclusive to say on the matter, and therefore the decision would appear to rest with the individual analyst. Moreover, cognitive script poetics generally proceeds by presenting definitions of scripts which are then referred to by way of commentary on a literary text, but, if Schank's own suggestion (seconded by Gibbs [2002]) that a given script "does not actually exist in memory in one precompiled chunk" (Schank 1999:19), these definitions cannot be taken at face value. Tellingly, the strongest recommendation which Stockwell (2003:269-270) makes is that "[s]chema poetics offers just enough degrees of delicacy, I think, for me to be able to discuss the organisation of information in science fiction without becoming entangled in superfluous detail", which is entirely consistent with the view that cognitive scripts are not psychologically real inner mental structures at all, but a useful device for cognitive poeticians – and Semino (2001:353, emphasis added) goes further by arguing that those who employ cognitive script theory "are talking metaphorically about something to do with information in our brains." Since it is clear that neither Stockwell nor Semino is convinced that the brain actually does store knowledge in the form of scripts, why do they (and many others) continue to use those scripts as an explanatory device? One stylistician

even declares that, rather than being independently validated by cognitive science, cognitive script poetics is independent of cognitive science:

The degree to which this version of schema theory, or indeed schema theory itself, continues to be used in AI need not concern us here. Versions of schema theory, once stated, have become independent of their original purposes. (Cook 1994:65)

It is significant that none of the analysts mentioned in the previous paragraph founds his or her analyses on empirically supported claims as to what knowledge various readers would actually make use of in interpreting particular texts. This is perhaps because, like other kinds of literary critics, what stylisticians are most interested in are their own interpretations of texts, and their ability to support those interpretations by the argumentative use of evidence. As Armstrong (1990) argues, it is vitally important for works of literary criticism to seem "intersubjective" (that is, acceptable to other readers besides the interpreter); I would therefore claim that, for cognitive poeticians, "script" has become a means of presenting as cultural or psychological facts the specific claims necessary to support their readings. This is not the same as claiming that cognitive script poetics is arbitrary; the central argument of this paper is simply that, in stylistics, the script has passed from being a scientific theory about the brain into being a highly formalised variant of a type of argument familiar from ordinary conversation. In other words, if cognitive script theory is not the basis for cognitive script poetics, then perhaps the effectiveness of the latter lies in its rhetorical nature. The point of this is not to debunk it, but to investigate it as a form of dialectical reasoning – and thus as a form of reading.

#### Discursive script theory

Billig (1996) makes two points about cognitive script theory. The first is that it shares its basic limitation with other instances of the "All the world's a stage" metaphor, namely, that it suppresses awareness of the centrality of argument to all social life – including the life of the theatre: "It is these arguments, lasting months, years, and sometimes lifetimes, which contribute to the activity which enables the performers to follow their scripts without argument for an hour or two in front of the footlights." (45) In other words, if (to return to our hardy perennial of script theory) the way to behave in a restaurant is not a set of instructions uncontroversially translatable into action, then this should come as no surprise, because neither is the script of a play. Actors, directors, critics, and scholars may argue with one another not only over how to follow the script of (say) As You Like It, but over the script itself: for one thing, lines, scenes, and even characters may be cut or combined, and for another, there is more than one edition of the play to choose from. Billig's second point, that categorisation and particularisation (scripts being an example of the former) are not computational processes but "strategies for thinking and argument" (150), is also of key importance to this study: to categorise (for example, to say that a given behaviour is normal in restaurants) or to particularise (for example, to say that it deviates from what is normal in restaurants) is always a rhetorical strategy. This is not to say that categorisation or particularisation is irrational, for rhetoric is not (on this view) a matter of artfully presenting ideas, but of ideas themselves: a type of argument is a type of thought, as one thinks by arguing, either with oneself or with another.

Edwards (1997) admits that "[p]eople surely do form generalised expectations, and treat actions as planful, and plan things," (163) but rejects the idea that "the scripted, planful nature of actions" can be placed "prior to accounts" of those actions as scripted or planful (164) – for him, scriptedness is not a matter of correspondence with an abstract mental representation, but of "opposed script and breach formulations" used by speakers in support of "psychological ascriptions" (162) made of those whose behaviour they are representing in

discourse. This is a profound conceptual re-orientation: "script formulation" and "breach formulation" are descriptive terms applied to discursive strategies involving the representation of actions as (respectively) conforming to or deviating from expectable patterns (arguments of categorisation and particularisation, respectively). Edwards provides an example from the real world in the form of a husband who presents his jealousy as normal and predictable in order to suggest that it is his wife's responsibility to avoid arousing it. To return to the ubiquitous restaurant script for an example of our own, if a member of the public walks into the establishment and removes his or her clothes, then the manager might perhaps indignantly respond, "This is a restaurant, not a nudist colony." In a nudist colony, one enters, one strips naked; in a restaurant, one enters, one is seated, one peruses the menu, one orders, one consumes... In this, I would argue, is the truth of the script: it does not float in the realm of pure semantics, but wallows in the social muck of criticism and justification (again, see Billig [1996] for a discussion of these as principles of thought). Importantly, the precise content of any script formulation will change according to the context within which and the purpose for which it is invoked, and any attempt to define it may be contested from a different point of view (in our example, perhaps by one of Britain's tireless campaigners for the right to be naked in public). Edwards' data consist of recordings of police interrogations and family counselling sessions, but his terms can just as fruitfully be applied to literary discourse: one could use them to describe the speech acts represented in fictional dialogue, or (more intriguingly) narratorial addresses to the reader, but their application might potentially be even greater in the analysis of what I might call meta-literary discourse: discussions in a reading group or on The Late Review, newspaper book reviews, even papers on cognitive script poetics. Thus, returning to Schank and Abelson (1977:67), we might wish to say that they have got it wrong when they claim that "[t]he actions of others make sense only insofar as they are part of a stored pattern of actions that have been previously experienced": I would claim instead that the actions of others can make any of various senses, depending on which pattern of actions they are made out to be part of or to deviate from.

To extend into literature the general theories of Billig (1996) and Edwards (1997), the analyses presented in the following section assume that a response to literature is always in argumentative relation to other responses, past and possible: if I might misquote one of Bakhtin's (1986) choicest aphorisms, the reader is not Adam. Reading, one knows that the book has been read before and has a certain status in the world, and that, since it is not given to one to pronounce definitively, one's reading may be questioned by others, hence the need for intersubjectively acceptable evidence. This is most obvious when we consider a "controversial" work like *The Satanic Verses*: even before reading Salman Rushdie's novel, one knows that one may have to deliver an opinion as to whether or not it is offensive to Islam (indeed, even to start reading it is already to take a stand of some description). All that is exceptional about this is the fatwa; more everyday examples are always to hand: a stranger on the train sees you with a book and asks you what you think of it, a friend wonders what you would recommend for holiday reading. In all these cases, script and breach formulations may be employed, as it is common, in talking about a text, to refer to its conformity or otherwise to expectable patterns: "It's just a typical piece of intellectual manger du prêtre, nothing to get worked up about" - "It keeps you guessing till the very last page" - "You'll like this one, it's one of those stories where..."

#### Cognitive script poetics as a discourse of script and breach formulations

Mills (1995) uses script theory to present an exemplary piece of feminist stylistic analysis: what feminists can *do* if they are annoyed by texts. This involves first looking at "individual language items in isolation" and then "look[ing] to larger-scale systems or schemata which determine the production of sexist language items" (207), the purpose being "to demonstrate

to readers the way that certain texts offer us constructions which are retrograde" in the hope "that readers will be able to find other narratives which are more productive" (218).<sup>3</sup> Two things strike me here: firstly, the commendably upfront rhetorical aim of changing people's choice of reading matter, and secondly, the needlessness with which the "schema" concept is appropriated from cognitive science.

The notion of a narrative schema is obviously simplistic, but it does help to explain the way in which there are certain plots which seem to us familiar and those which present themselves as marked or unfamiliar. (Mills 1995:215)

I shall leave aside the fascinating possibility that a plot which so *presents* itself might constitute a breach formulation, and focus instead on Mills's insight that a plot seems most tired when it exhibits similarities not just to other specific plots but to a representation of a typical plot. My point is not simply that we already have a word for such a representation – "cliché" – but that the French term has a great advantage over the Greek, namely, its lack of mentalistic baggage: clichés are the kind of things we can and do (and know we can and do) represent discursively, by means of categorisation arguments of precisely the type that we find in Mills (1995).

A truly thorough "cliché formulation", Mills's analysis of Martin Amis's novel *London Fields* involves first the description of a series of regularities across our culture as constituting a single pattern of regularity ("a large number of other plots... a wide range of cultural images and texts... a large number of plots in films... routinely... this complex of ideas... These types of narratives..." [213]), and then the structuring of this pattern as itself determining the possibilities of a particular class of narratives ("the plot necessarily has to be... the female character has to be... the murder/rape needs to be..." [216]). Since these characteristics can also be identified in *London Fields*, it is shown to be not only sexist, but also unoriginal, and thus, Mills turns on its head the commonplace that political correctness is the bane of creativity, suggesting that, on the contrary, it is political *incorrectness* that is stultifying. Her critical *coup-de-grace* is to admit a limited sort of creative freedom on Amis's part, only to reveal it as manifest within very predictable limits:

Of course, because the writer is Martin Amis, there is a twist to the plot, and it is far less simple than this account might suggest; but the cleverness and mystery is located at the level of who killed the woman rather than at the level of her role in being killed.

(Mills 1995:Endnote 3)

Cook's (1994) rhetoric takes precisely the opposite tack, a procedure that I would categorise (in the spirit of argument, naturally!) as a breach formulation with positive aesthetic ascriptions. For him, literature is valuable to the extent that it brings about change in sets of knowledge items (the process of "schema refreshment"). In his analysis of Edward Bond's *First World War Poets*, he argues for the value of the poem by laying out a series of schemata and then arguing that they are disrupted by it. Because these schemata are supposed to exist only in the mind of the individual, "hypotheses must relate to particular readers", with Cook choosing to specify schemata he believes can be attributed to "British readers who received a Christian education during the 25 years following the Second World War" (171). There are several of these, but here the following should suffice (note that "\$S" signifies a "scriptlike schema", and "R", the reader):

#### \$S R POETRY (A TEXT/LANGUAGE SCHEMA)

HAS rhythm, rhyme, and other sound effects, elevated language, figurative language, original language. (Cook 1994:173)

Having related his schemata to details of the text itself, Cook can claim that

The poem challenges every element in the scripts and plans (as I have defined them)... It also represents... a contradiction of \$S R POETRY. In formalist terms, it defamiliarises received ideas of war, war poetry, and poetry in general. (Cook 1994:173)

What is interesting here is how carefully those scripts and plans have been defined in order to permit this very conclusion: \$S R POETRY, for example, contains no mention of allusive language, despite (or, dare I say it, because of) Cook's painstaking exploration of Bond's poem's many textual allusions (Cook 1994: Table 6.1; see Appendix I). My point is not that Cook's reading is flawed – indeed, I think it is a fine piece of reasoning – but that the "schemata" to which it refers are constructs of Cook's own rhetoric – constructs which, like the "narrative schema" on which Mills's analysis depends, I find to be persuasive categorisations, but which contribute to, rather than describe, interpretation. In short, what these two examples of cognitive script poetics reveal is not the dependence of private reading experiences on knowledge structures retrieved from long-term memory, but the public negotiation of reading experiences by reference to knowledge structures created in discourse, and my hunch is that, for all their sophistication and status, what Mills and Cook do is a better model of the ordinary reading process than any computer simulation. Not all readers write, of course, but, as empirical studies have shown, most "need the support of talk with other readers, the participation in a social milieu in which books are 'in the air'" (Long 1992:191); from the institutional heights of stylistics to the plebeian depths of reading for pleasure, what happens when we turn pages and run our eyes over what is printed there is not the private outcome of a set of cognitive constants and variables. Rhetorically constructed and ideologically committed, it is the very essence of a social act.

#### Conclusion

Cognitive poetics tends to present the reading experience as a natural object determined by causal relations which are in principle available for scientific investigation (eg. Stockwell 2002). Against that, this paper shows how cognitive poetic analysis itself at times belies this conception by creating, rather than investigating, both object and relations. Thus, while Jeffries (2001) complains that "analysts continue to provide their own readings of texts and make rather general assumptions about 'likely' readers" (337) when "there is a need for more and extensive research that will take us beyond the analyst's own meaning" (Endnote 18), I would simply claim that the central purpose of cognitive poetics is not to explain text processing, but to provide readings of texts supported by theories of text processing, and that a paper which reversed this would constitute not stylistics but empirical literary studies. This illustrates the usefulness, insofar as the cognitive script poetics of Mills and Cook is accepted as a kind of reading, of the alternative paradigm outlined above: that of reading as argument. As for its applicability to other, less overtly controversial types of reading, I would suggest that a reading of London Fields by one of its fans, or of First World War Poets by someone who finds it unpoetic and in poor taste would be no less of an argument – an argument that Mills or Cook is attempting to refute (which is not to deny that Mills's argument is also with Amis himself, as she reads him) – and that for any admirer of Amis or detractor of Bond who has read what Mills and Cook have to say, an uncontroversial reading is already a conscious impossibility. Even to declare (and even to declare to oneself), "To me, it means something else; I don't care what anybody else thinks," is to employ an argument: the very familiar argument that the experience of literature is subjective, an encounter between solipsistic reader and self-sufficient text. Furthermore, the everyday reading experience that Jeffries (2001:339) has called "the process of reading from multiple perspectives" suggests the hypothesis that the social identities that constitute the individual reader in the act of

experiencing a text may have an argumentative relation to one another (here, empirical readers' ability to construct script or breach formulations in support of contradictory positions on a text might form the object of study).

I am mindful of the likely objection that giving a reading is not the same activity as reading, and that therefore, with regard to literature, we can quite easily separate the social from the cognitive. This is an issue which needs addressing at length, but for now I shall make three observations only. The first is that the hypothesis that mental processes depend on public practices (and not the other way around) invokes the spirit of Vygotsky at a time when there are murmurings of a Vygotskian revolution afoot in cognitive science (eg. Gentner and Goldin-Meadow 2003). The second is that, to mangle CLR James's famous remark about cricket, one who only knows of cognition knows nothing of cognition. Thus, though events taking place inside and outside of any given skull are as at least as distinct as events taking place inside and outside of the Oval, this does not mean that we can understand the former without according prior status to the latter. This point has been well argued by psychologists (Still and Costall 1991; Harre and Gillet 1994; Billig 1996; Edwards 1997; Smail 1999), but it is perhaps put best by the twentieth century's most important philosopher of science, who goes so far as to argue that it is "impossible to reduce our actions to a psychological or behaviouristic analysis; rather, every such analysis presupposes sociology" (Popper 2005:100). For our purposes, the relevant sociology would certainly include an account of the institutions and arguments – and institutional arguments – that define reading in a given culture. And the third? Well, that is only that if, in reading this, you have felt inclined to take issue with every word, then perhaps you have made my point better than I could, and that to propose that things are simply different with literature would in itself be highly contentious. In keeping with the spirit of my own argument, I do not ask your indulgence.<sup>5</sup>

#### Appendix I:

Evoked reference	"Trigger" in poem
"My subject is war and the pity of war."	"bleated at the pity of it"
Wilfred Owen	"only bleated/ The pity!"
	(lines 2, 9-10)
"He was brought as a lamb to the slaughter."	"like sheep abattoirs" (lines 1,3)
(Isaiah 53:7)	
"Guttering, choking, drowning" (Wilfred	"You turned the earth to mud/ Yet complain
Owen: "Dulce et Decorum Est")	you drowned in it" (lines 5-6)
"The whole herd rushed down the steep bank	"they herded you over the cliffs to be rid of
into the lake and died in the water." (Matthew	you" (line 22)
8:28-32)	
"We will remember them." (Laurence	"We will not forget!" (line 32)
Binyon: "For the Fallen")	
"Then Jesus said, Father forgive them for they	"We will not forgive" (line 33)
know not what they do." (Luke 23:34)	
"Father forgive."	
"Lest we forget."	
(On war memorials)	

Cook (1994), Table 6.1

#### **Endnotes:**

<sup>1</sup> This paper is a substantially revised draft of work carried out in partial fulfilment of the MA in Literary Linguistics programme at the University of Nottingham.

- <sup>2</sup> Though some cognitive researchers use these terms contrastively, I shall treat them as synonyms, whilst giving preference where possible to the word "script". In this, I follow the precedent set by Cook (1994:20), who treats the word "schemata" as "roughly synonymous" to a range of terms, including "frame[s]" and "scenarios": though individual theorists may use different terms (or sets of terms) to refer to slight variations on the basic idea, there is no generally-agreed system for doing so, and so it is necessary for working definitions to be provided in any survey of or contribution to the field. Thus, for the purposes of this paper, "script" refers to any theoretical construct substantially resembling Schank and Abelson's (1977) concept of that name, "cognitive script theory" refers to any attempt to theorise cognition that involves such a construct, and "cognitive script poetics" refers to any form of literary stylistics for which such a construct forms part of the interpretative framework employed.
- <sup>3</sup> Here, "narratives" appears to have the double sense of, on the one hand, plots, and on the other, filmic or novelistic realisations of those plots.
- <sup>4</sup> For an example of such a presentation that might prove rewarding, see Balzac's *Jacques le Fataliste*, approached from a rather different angle by Culler (1975:149), in which the narrator constantly informs the reader of what, he claims, would typically happen in a work of fiction, as a prelude to revealing the very different events of his own story.
- <sup>5</sup> With thanks to Peter Stockwell, for disagreeing with points made in an earlier draft of this paper, to the anonymous referees, for pointing out the shortcomings of my rhetoric and for expanding the argumentative context to which I have been able to respond, and to the one person in the world with whom I cannot bear to disagree for long, for far too many things to mention here.

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