ELSEVIER

Poetics 22 (1994) 389–407

POETICS

Foregrounding, defamiliarization, and affect: Response to literary stories ☆

David S. Miall [a], Don Kuiken [b]

[a] *Department of English, University of Alberta, Edmonton, Alberta, Canada, T6G 2E5*
[b] *Department of Psychology, University of Alberta, Edmonton, Alberta, Canada, T6G 2E5*

Abstract

The notion that stylistic features of literary texts deautomatize perception is central to a tradition of literary theory from Coleridge through Shklovsky and Mukařovský to Van Peer. Stylistic variations, known as foregrounding, hypothetically prompt defamiliarization, evoke feelings, and prolong reading time. These possibilities were tested in four studies in which segment by segment reading times and ratings were collected from readers of a short story. In each study, foregrounded segments of the story were associated with increased reading times, greater strikingness ratings, and greater affect ratings. Response to foregrounding appeared to be independent of literary competence or experience. Reasons for considering readers' response to foregrounding as a distinctive aspect of interaction with literary texts are discussed.

1. Introduction

A survey of recent empirical studies of literary comprehension shows that little attention has been paid to the effects of literary style, often known as foregrounding. Yet a long tradition in literary theory, from Aristotle, Horace, and Quintilian, through the British Romantic writers, to the Russian Formalists and the Prague Linguistic Circle, has emphasised that stylistic features are characteristic of literary

☆ The research reported in this paper was supported by the Central Research Fund of the University of Alberta and Program Grant No. 53–10018 from the Social Sciences and Humanities Research Council of Canada.

We gratefully acknowledge the assistance of Mathew Martin, Cam Balzer, and Mario Trono in the collection of data. We also thank Willie Van Peer, Gerald Cupchik, and two anonymous reviewers for valuable comments on earlier drafts of this paper.

SSDI 0304-422X(94)00011-T

texts. Recent theorists, on the other hand, have tended either to ignore or dismiss this possibility (Fish, 1980: 68–96; Halász, 1989; Schmidt, 1982: 90). Similarly, investigators of prose comprehension, some of whom have taken an interest in literary texts, have focused on cognitive aspects of meaning representation (Van Dijk, 1979) or on affective aspects of narrative content (Brewer and Lichtenstein, 1982; Hidi and Baird, 1986) independently of style (Miall and Kuiken, in press). However, if foregrounding is characteristic of literary texts, it should be possible to obtain empirical evidence of its effects on readers. In this paper we review some theoretical reasons for examining foregrounding, and point to several recent investigations of how foregrounding influences readers' reactions. We then report four studies that examined the relationship between foregrounding and responses to literary short stories.

1.1. Background in literary theory

The term *foregrounding* had its origin with the Czech theorist Jan Mukařovský: it is how Mukařovský's original term, *aktualisace*, was rendered in English by his first translator (Mukařovský, 1964 [1932]). It refers to the range of stylistic variations that occur in literature, whether at the phonetic level (e.g., alliteration, rhyme), the grammatical level (e.g., inversion, ellipsis), or the semantic level (e.g., metaphor, irony). As Mukařovský pointed out, foregrounding may occur in normal, everyday language, such as spoken discourse or journalistic prose, but it occurs sporadically without systematic design. In literary texts, on the other hand, foregrounding is structured: it tends to be both systematic and hierarchical. That is, similar features may recur, such as a pattern of assonance or a related group of metaphors, and one set of features will dominate the others (Mukařovský, 1964: 20), a phenomenon that Jakobson termed "the dominant" (1987: 41–46).

With everyday language, Mukařovský argued, communication is the primary purpose, and foregrounding structures are normally not involved. But in literature the purpose of foregrounding is to disrupt such everyday communication.

> "Foregrounding is the opposite of automatization, that is, the deautomatization of an act; the more an act is automatized, the less it is consciously executed; the more it is foregrounded, the more completely conscious does it become. Objectively speaking: automatization schematizes an event; foregrounding means the violation of the scheme." (1964: 19 [1932])

Thus in literature, the act of communication becomes secondary. The primary focus of the reader is on style:

> "In poetic language foregrounding achieves maximum intensity to the extent of pushing communication into the background as the objective of expression and of being used for its own sake; it is not used in the services of communication, but in order to place in the foreground the act of expression, the act of speech itself." (1964: 19 [1932])

This does not mean that literature has no communicative function, as Mukařovský is at pains to point out (e.g., 1977: 6, 71): rather, foregrounding enables literature to present meanings with an intricacy and complexity that ordinary language does not normally allow.

Viktor Shklovsky, the Russian Formalist critic, had offered a similar account of the effects of style some decades before. He argued that stylistic devices do more than convey familiar meanings: the function of the literary image "is not to make us perceive meaning, but to create a special perception of the object – *it creates a 'vision' of the object instead of serving as a means for knowing it*" (1965: 18 [1917). Such a 'vision' is the result of a process much like the deautomatization described by Mukařovský. Art exists, Shklovsky remarked,

> "that one may recover the sensation of life; it exists to make one feel things, to make the stone stony. The purpose of art is to impart the sensation of things as they are perceived and not as they are known. The technique of art is to make objects 'unfamiliar,' to make forms difficult, to increase the difficulty and length of perception because the process of perception is an aesthetic end in itself and must be prolonged." (1965: 12 [1917])

In this view, the immediate effect of foregrounding is to make strange (*ostranenie*), to achieve defamiliarization. In this respect Mukařovský and Shklovsky, although they seem unaware of it, show continuity with earlier work by Coleridge and Shelley (Erlich, 1981: 179). Coleridge, for example, in praising Wordsworth's poetry, refers to the poet's ability "to combine the child's sense of wonder and novelty with the appearances, which every day for perhaps forty years had rendered familiar" (1983, i.81 [1817]). Shelley describes the power of poetry in similar terms: it "purges from our inward sight the film of familiarity which obscures from us the wonder of our being" (1988: 295 [1840]). Poetry, in other words, overcomes the barriers of customary perception, and enables us to see some aspect of the world freshly or even for the first time. It might be countered that, if literature is always creating novelty, we must gradually become accustomed to surprise and no longer respond to the "wonder of our being" (cf. Wellek and Warren, 1976: 242; Martindale, 1984). But as Coleridge puts it, poetry not only "produces the strongest impressions of novelty", it also "rescues the most admitted truths from the impotence caused by the very circumstances of their universal admission" (1983, i.82 [1817]). Thus one reason we do not become weary of novelty is because it provides us with a window on the truth. With an issue of major concern to us, even repeated re-readings of the same text may afford new perspectives on its complexities. [1].

It is also clear, from a number of places in Coleridge's writings, that he saw the defamiliarizing process as accompanied by feeling. His well-known definition of the poetic imagination in *Biographia Literaria* first defined it in defamiliarizing terms: it "dissolves, diffuses, dissipates, in order to re-create" (1983, i.304 [1817]). Then in describing the aims of poetry that he and Wordsworth wrote, he claimed

[1] Consistent with the implications of the argument of Wellek and Warren (1976), Dixon et al. (1993) have argued that appreciation of the literary quality of a text may actually be greater during rereading. Our somewhat different proposal is that the literary quality of a text influences initial readings and may continue to influence rereadings. Although investigating that possibility is not our present objective, an extension of the methods used in the studies reported here could clarify whether stylistic variations per se influence readers' reactions during rereading.

that imagination evokes feelings of sympathy and interest. The "two cardinal points of poetry" he said, are "the power of exciting the sympathy of the reader by a faithful adherence to the truth of nature, and the power of giving the interest of novelty by the modifying colours of the imagination" (1983, ii.5 [1817]). In a similar vein, Shklovsky saw defamiliarization as accompanied by feeling: he noted, more precisely, that stylistic devices in literary texts "emphasize the emotional effect of an expression" (Shklovsky, 1965: 9 [1917]). And, Mukařovský concurs, "When used poetically, words and groups of words evoke a greater richness of images and feelings than if they were to occur in a communicative utterance" (1977: 73).

Common threads in these ideas, offered by Mukařovský, Shklovsky, and Coleridge, enable formulation of the psychological process that a reader undergoes when encountering foregrounding. Briefly stated, we propose that the novelty of an unusual linguistic variation is defamiliarizing, defamiliarization evokes feelings, and feelings guide 'refamiliarizing' interpretative efforts. There seems little doubt that foregrounding, by creating complexity of various kinds, requires cognitive work on the part of the reader; but it is our suggestion that this work is initiated and in part directed by feeling. For example, in a story used in one of our studies, a segment early in the story describes a place in a garden called the Dark Walk: "It is a laurel walk, very old, almost gone wild, a lofty midnight tunnel of smooth, sinewy branches". Foregrounding helps to create the meaning of this sentence: alliteration of [l] and [s] sounds, for example, and the metaphoric use of 'midnight' and 'sinewy'. The process unfolds in three phases. First, these novel linguistic features strike readers as interesting and capture their attention (defamiliarization *per se*). Second, defamiliarization obliges the reader to slow down, allowing time for the feelings created by the alliterations and metaphors to emerge. Third, these feelings guide formulation of an enriched perspective on the Dark Walk. Readers whom we have asked to talk about their responses to this segment frequently found this passage striking (e.g., 'very beautiful'), mentioned specific feelings (e.g., 'foreboding'), and developed novel perspectives on the Dark Walk (e.g., 'something that's not of this world'). Such comments suggest that defamiliarization evokes feeling in a way that makes it not merely incidental but actually a constructive part of the reading process. When perception has been deautomatized, a reader employs the feelings that have been evoked to find or to create a context in which the defamiliarized aspects of the story can be located. This is a central part of the constructive work required of the reader of a literary text.

1.2. Empirical implications

Most empirical studies of reading literary texts have neglected the effects of foregrounding on defamiliarization, on the emergence of feeling, and on the development of readers' refamiliarizing attempts. However, some studies have examined aspects of this process.

Foregrounding and strikingness

There is some evidence that foregrounding in literary texts induces defamiliarization, i.e., it strikes readers as interesting and captures their attention. Hunt and

Vipond (1985) investigated the effects of textual features that they, following Labov (1972), refer to as 'discourse evaluations'. These are described as 'words, phrases, or events' that are 'unpredictable against the norm of the text' and that convey the narrator's evaluations of story characters or events. Since discourse evaluations resemble foregrounding as discussed in the present report, Hunt and Vipond's findings are noteworthy. In a study with readers of a short story, they found that readers were more likely to report that story phrases 'struck them' or 'caught their eye' when presented with the original discourse evaluations than when those phrases had been adapted so that the same story events were described in relatively 'neutral' terms.

In a study in which foregrounding was defined precisely as in the present report, Van Peer (1986) has also found that foregrounding strikes readers' interest. Using six short poems, Van Peer asked readers to note which lines of a poem seemed more 'striking'. Regardless of their prior level of literary training, readers showed remarkable agreement on this task, and, most significantly, their rankings of how striking they found the lines of poetry correlated significantly with Van Peer's prior rankings of the extent to which those lines included foregrounding. One objective of the present study was to replicate and extend Van Peer's findings by examining whether readers of short stories would rate highly foregrounded passages as more striking than passages with less foregrounding.

Foregrounding and affect

Although the Hunt and Vipond (1985) and Van Peer (1986) studies indicate that readers experience foregrounded text as striking, neither study attempted to examine whether readers also experience foregrounded text as evocative of feeling. Although available evidence is indirect, it does suggest a relationship between the defamiliarizing effects of foregrounding and the emergence of feeling. If response to foregrounding is conceptualized as the reaction to an unexpected textual feature, evidence from studies of event-related potentials indicates that reading foregrounded text accentuates activity in cortical areas specialized for affect. In a study by Kutas and Hillyard (1982), sentences with semantically inappropriate final words were presented while event-related potentials were recorded. They confirmed earlier findings of a negative potential (N400) in response to the semantically anomalous words. More recent evidence indicates that the amplitude of the N400 potential increases to the extent the final word is incongruent with semantic constraints (Van Petten and Kutas, 1990) and with grammatical constraints (Osterhout and Holcomb, 1992). Perhaps such shifts to right hemispheric activation enable semantic and grammatical anomalies, such as foregrounding, to be related to the prosodic aspects of affective comprehension in which this hemisphere specializes (Davidson, 1984; Heilman and Bowers, 1990). That interpretation is congruent with evidence that patients with right-hemisphere damage have difficulty understanding the meaning of metaphors (Winner and Gardner, 1977) and of prosodic speech elements (Joanette et al., 1991: 132–159). Such patients may not experience the feelings that normally emerge when foregrounded text induces defamiliarization.

Somewhat more direct evidence that defamiliarization evokes feeling is available from a study by Miall (1992). He compared the affect ratings of experiences associated with noun phrases before and after those noun phrases were encountered in the lines of a poem. For example, an experience associated with the word 'duplication' was rated before and then after encountering the following metaphoric phrase in the Roethke poem entitled *Dolour*: "endless duplication of lives and objects". Readers reported that affect was accentuated in associations to noun phrases after those phrases were encountered in lines containing numerous foregrounded elements. For example, one reader commented: "After reading [this line] I felt the sinister effect of many things being the same". Since this study was conducted in a classroom setting, the effects due to reading may have been confounded with effects due to class discussion, etc. However, together with the psychobiological studies reviewed earlier, these observations suggest that foregrounding not only prompts defamiliarization but also accentuates feeling. The second objective of the present study was to systematically substantiate that claim by examining whether readers of short stories rate highly foregrounded passages as more evocative of affect than passages with less foregrounding.

Foregrounding and reading time

If highly foregrounded passages of literary texts are striking and affectively evocative, such passages may, in Shklovsky's phrase, "increase the difficulty and length of perception". For several reasons, readers may be expected to dwell on foregrounded passages. First, at the phonetic level, such features as alliteration or rhyme may produce a slight 'drag' on reading, particularly if a reader engages in sub-vocal articulation. Such prolonged reflection on phonetic features may allow realization of their feeling connotations (cf. Fónagy, 1989). Second, at the grammatical level, such features as inversion or ellipsis may produce comprehension difficulties. As research on 'garden-path' sentences has shown (e.g., Frazier and Rayner, 1987), deviations in normal syntax impede processing and increase reading time. Extended reflection on those complexities may enable recognition of implicit emphases or evaluations. Third, at the semantic level, such features as metaphor or irony may refer to less salient attributes of textual referents. Lengthy reflection may be necessary to identify those less salient – and often affective – attributes. Fourth, the hierarchical arrangement of foregrounding around a dominant (Jakobson, 1987) may require the integration of reactions to complexes of phonetic, grammatical and semantic features of a text. In general, foregrounding may motivate an attentional pause that allows emergence of related feelings.

In addition, during an encounter with foregrounded text, the reader may engage in what we have called 'refamiliarization': the reader may review the textual context in order to discern, delimit, or develop the novel meanings suggested by the foregrounded passage (a process that Harker (in press) has described as the reader's 'reattentional' activity). At the phonetic level, the reader may reconsider the context that enables identification of the feeling connotations of alliterative or assonant passages (Brown, 1958: 110–139). At the grammatical level, the reader may reconsider the context that helps to identify the 'absent' referent of an ellipsis.

At the semantic level, the reader may recall other passages that extend or embellish a metaphor. We propose that, in general, such reconsideration of the text surrounding foregrounded features will be guided by the feelings that have been evoked in response to those features. As de Sousa (1987: 196) has argued, accentuated feelings set the "patterns of salience among objects of attention". Thus, the feelings accentuated while reading foregrounded passages sensitize the reader to other passages having similar affective connotations. Furthermore, such accentuated feelings sensitize the reader to other 'texts' (e.g., personal memories, world knowledge) having similar affective connotations (see Kuiken, 1991, for a review). With such affectively congruent intra- and extra-textual resources, the reader 'refamiliarizes' or 'thematizes' the textual subject matter.

Since foregrounding often occurs in clusters of closely related phonetic, grammatical, and semantic features, the sheer density of the processes by which refamiliarization occurs suggests that it takes time to unfold. In fact, as the preceding discussion suggests, the complexity of those processes exceeds that proposed by the now widely discredited model according to which non-literal expressions are more complex and require longer to comprehend than literal expressions (cf. Glucksberg, 1991). We are referring to the extended reading time that may occur in response to texts that require an integrated response to structured complexes of foregrounding features, such as occurs most evidently in poetry. While we know of no direct evidence that foregrounding in this sense increases reading time, there is some evidence that the 'refamiliarizing' activities just reviewed occur in response to foregrounded text. In a study with readers of a Woolf short story, Miall (1989) found that, while phrases describing the relationships in the opening section of the story were at first judged more important, defamiliarizing phrases describing the setting were judged as more important at a second reading – after readers had begun to doubt their initial, conventional interpretation. In another study, based on think-aloud data from readers of another Woolf story (Miall, 1990), defamiliarizing phrases provided the main focus for readers' constructive activities: such phrases elicited more interpretive reflection, they participated more often in perceived relationships between passages in the story, and they resulted in more explicit anticipations of overall story direction and meaning than other phrases. Although foregrounding was not systematically assessed in these studies, the findings lend plausibility to the notion that readers take longer to interpret foregrounded passages, to savour their affective implications, and to evaluate the contributions of those passages to understanding the story as a whole.

The generality of foregrounding effects

A fourth objective of the present investigation was to examine the generality of the relationships between foregrounding, strikingness, affect, and reading time. It might be thought that these relationships would be evident only among individuals who are predisposed by instructions or training to attend to literary style. For example, when Zwaan (1991) prepared materials that could be read either as newspaper texts or as literary texts, readers who were encouraged to adopt the

literary perspective read the texts more slowly and retained a more complete representation of surface structure as shown by a recall task. Similarly, when Hoffstaedter (1987) presented 24 different texts either as newspaper texts or as poetic texts, 10 of them were judged more 'poetic' when introduced as poetic texts than when introduced as newspaper texts. On the other hand, the perspective effects observed in these studies may be specific to texts in which foregrounding is not prevalent. Zwaan's texts were deliberately chosen because they contained few 'literary qualities', and Hoffstaedter obtained perspective effects only with poems that were relatively devoid of 'properties which potentially contribute to a poetic processing'. Thus, since Van Peer (1986) found that both experienced and inexperienced readers responded to foregrounding in unambiguously poetic texts, any conclusions regarding the generality of the effects of foregrounding on readers' response seem premature. We attempted to explore this issue further by assessing the relationships between foregrounding, strikingness, affect, and reading time among groups of readers who differed considerably in experience with literary texts.

2. The studies

2.1. General methods

Three literary stories were selected that were short enough for both a normal reading and a rating task to be completed conveniently during a single session of under one hour. The stories also contained a variety of foregrounded features. Each story was divided into roughly equal segments using phrase and sentence divisions and retaining meaningful units as far as possible (the number of segments per story ranged from 77 to 86).

Three independent judges (two graduate students in English and the first author) then analysed the segments of the stories for the presence of foregrounded features at the phonetic, grammatical, and semantic levels. Although we believe that the hierarchical structure of foregrounded features around a dominant is critical in understanding the effects of foregrounding on readers' response, the frequency of foregrounding within a segment was used as an index of the complexity of such structures in the present investigation. Judgements of which features were identified as foregrounding sometimes varied: for instance, one judge might select alliteration of [p] sounds as significant, while another selected [r] sounds. Thus it appeared that individual differences in either sensibility or preference were playing a role in judgements of foregrounding that should not be disregarded. Nonetheless, it was found that judges tended to agree on which segments contained a larger or smaller array of features at all levels. Inter-judge agreement was therefore checked by correlating the frequencies of features identified per segment by each judge. Mean correlations (across all features) were highly significant ($p < 0.001$): *The Trout*, $r(82) = 0.516$; *The Wrong House*, $r(84) = 0.577$; *A Summing Up*, $r(75) = 0.531$. Through discussion a consensual list of foregrounded features

Table 1
Foregrounding analysis of four segments of *The Trout*

Segment	Phonetic	Grammat.	Semantic
1. One of the **first places** Julia always ran to when they arrived in G--- was The **Dark Walk**.	k×2; l×3; n×3; w×4		G--- Caps: D- W-
2. It is a laurel walk, very **old**, **al**most gone wild, a lofty midnight tunnel of **smooth**, **sin**ewy branches.	l×7; m×3; n×5; s×3; w×2	3 sub phrases	met: midnight sinewy
3. Underfoot the **tough brown** leaves are never dry enough to crackle: there is always a suggestion of damp and **cool trickle**.	ckle×2; ough×2; c×3; d×2; n×3; r×4; t×4; u×4; z×4; cons: crackle/trickle	balance phrase struct; w/o: underfoot	met: suggestion; oppos: dry/damp
4. She **raced right** into it.	r×2; t×3		

Notes: Metrical foregrounding: adjacent stresses are shown in boldface. In the Phonetic column a letter or morpheme followed by a number indicates alliteration or assonance. Abbreviations: cons: consonance; sub: subordinate; struct: structure; w/o: reversal of usual word order; Caps: capitalization; met: metaphor; oppos: semantic opposition.

was drawn up for the three stories. An example analysis of four story segments is given in Table 1.

To control for differences in segment length, the frequencies of phonetic, grammatical, and semantic foregrounded features were converted to frequencies per syllable. (For comparison, we also computed frequencies per word: almost identical results were obtained in the first study reported below.) In order to give equal weight to each of the three levels of foregrounding, frequencies per syllable were then converted to standard scores (i.e., *z*-scores). An index of overall foregrounding per segment was produced by computing the mean of the three separate standard scores.

In all studies readers were asked to read the story twice on a computer screen. In the first reading, the story segments were presented one at a time, with the preceding segments scrolling upwards on the screen. The scrolling lines were sequentially placed so that they would mimic the usual appearance of text on a written page, except that the current segment was highlighted by a different colour. Readers could advance to the next segment by pressing a key when they had finished reading the current segment. Readers were instructed to read at their normal speed, and the computer recorded the time taken to read each segment (in 100th parts of a second). In the second reading, readers were shown each story segment again, within a context of the two preceding and succeeding segments. During this reading they were asked to rate each segment according to a preset criterion (assigned by the experimenter). The ratings were indicated using a 5-point scale where, for example, a rating of 1 meant 'not at all striking' and a

Table 2
Correlations of reading times with story factors

	Study 1 *The Trout*	Study 2 *The Wrong House*	Study 3 *The Wrong House*	Study 4 *A Summing Up*
Controlling for segment position and number of syllables				
Foreground:				
simple	0.394 [d]	0.338 [c]	0.267 [b]	0.281 [b]
partial	0.423 [d]	0.310 [b]	0.257 [b]	0.205
Segment:				
simple	−0.374 [d]	−0.284 [c]	−0.113	−0.033
partial	−0.403 [d]	−0.252 [b]	−0.047	−0.148
Syllables:				
simple	−0.557 [d]	−0.544 [d]	−0.526 [d]	−0.583 [d]
partial	−0.580 [d]	−0.565 [d]	−0.528 [d]	−0.566 [d]
Controlling for stress				
Foreground and stress:				
simple	0.463 [d]	0.280 [c]	0.281 [c]	0.222 [a]
Stress and readtime:				
simple	0.284 [c]	0.368 [d]	0.327 [c]	0.530 [d]
Foreground and readtime:				
partial	0.309 [c]	0.263 [b]	0.193	0.198

[a] $p < 0.05$; [b] $p < 0.02$; [c] $p < 0.01$; [d] $p < 0.001$ (two-tailed)

Notes: These results are based in part on two multiple regression models, in which segment position, number of syllables per segment, number of stresses per segment (adjusted for segment length), and foregrounding are used as predictors of reading times. In the first set of partial correlations shown in the upper half of the Table, the influence of two of the three independent variables is partialled out; in the second set of partial correlations, the effect of stress is partialled out.

rating of 5 meant 'extremely striking'. For those asked to judge strikingness, the instruction read: 'Decide to what extent a given segment stands out as striking in some way, compared with the tone of the story in general'. For rating affect, readers were asked to decide to what extent each segment 'arouses feeling in you as a reader, from no feeling to strong feeling'.

After the rating task, readers were also given one or more questionnaires to complete (the findings from which will be reported separately) and provided a complete debriefing.

2.2. Study 1

In the first study participants read *The Trout* by Sean O'Faolain. The story, which consists of 1387 words, was divided into 84 segments. The mean number of words per segment was 16.51, or 20.88 syllables (standard deviation for syllables: 10.79). The readers were 60 students recruited from senior level courses in English literature at the University of Alberta; each was paid a small sum for participating.

Four groups of 15 readers each provided ratings for strikingness, affect, importance, and discussion value.

Kendall's Coefficient of Concordance indicated considerable agreement among participants in both their reading times and ratings ($p < 0.001$ in each case). Pearson correlations were calculated between mean reading times per segment and the overall foregrounding index, as well as the three separate indices for phonetic, grammatical, and semantic foregrounding; in addition we obtained the correlations between the foregrounding indices and the mean ratings.

As indicated in the first column of Table 2, bivariate correlational analyses provided support for the predicted relationships: overall foregrounding was reliably associated with mean reading times. However, bivariate correlations also indicated that readers consistently read longer segments faster (per syllable) than shorter segments [2] and that they read faster as they approached the end of the story, as at least one previous study has found (Olson et al., 1981). When these potentially confounding variables (segment position, syllables per segment) were statistically controlled using partial correlations, the relation between foregrounding and reading was unattenuated.

Since the English language is naturally stressed, it might be expected that reading times would primarily be a response to stress patterns that occur in all texts regardless of foregrounding. In fact, bivariate correlations indicated a positive relation between the number of stresses per segment and reading times. However, some stresses are involved in normal (non-literary) language use while others are foregrounded departures from such normal patterns (e.g., dense stress patterns such as spondees). To clarify whether the relation with foregrounding was independent of normal stress patterns, we statistically controlled for number of stresses per segment, finding that the relation between foregrounding and reading times was only slightly attenuated.

Analyses of the components of foregrounding were also carried out separately. In a second multiple regression model, the effect of each component on reading times was obtained while controlling for the other two components. As shown in the first column of Table 3, a significant relationship was found for the phonetic and semantic components which was independent of the other components.

Significant correlations between foregrounding and rated strikingness and rated affect were also found, as shown in the first column of Table 4. The influence of other story factors on ratings was also examined: when the effects of segment position and segment length on rating were partialled out, their relationship with foregrounding was stronger. In summary, segments with more foregrounded features took longer to read, were found more striking, and evoked more affect. Note,

[2] This effect may depend on two factors: first, a constant due to response factors (e.g., the time required to press the space bar between segments) may affect the reading time/segment ratio proportionately more for short segments than for long segments; and second, proportionately fewer eye-fixations may be needed for long segments, which take full advantage of the reader's scanning abilities, than for very short segments which may underutilize those abilities. Both may be artifacts of the present reading situation.

Table 3
Correlations of reading times with foregrounded components

	Study 1 *The Trout*	Study 2 *The Wrong House*	Study 3 *The Wrong House*	Study 4 *A Summing Up*
Phonetic:				
simple	0.377 [d]	0.267 [b]	0.157	0.065
partial	0.301 [d]	0.250 [a]	0.141	−0.009
Grammatical:				
simple	0.018	0.137	0.048	0.375 [d]
partial	−0.024	0.060	−0.045	0.386 [d]
Semantic:				
simple	0.377 [d]	0.259 [b]	0.320 [c]	0.102
partial	0.304 [d]	0.227 [a]	0.313 [c]	0.137

[a] $p < 0.05$; [b] $p < 0.02$; [c] $p < 0.01$; [d] $p < 0.001$ (two-tailed)
Note: A multiple regression model employed here enabled the three foregrounding factors, phonetic, grammatical, and semantic, to be examined separately as predictors of reading times. In each of the partial correlations shown, the influence of the other two variables is partialled out.

however, that the grammatical foregrounding index was not reliably correlated with either reading times or ratings.

2.3. Study 2

The story used in the second study was *The Wrong House* by Katherine Mansfield. This story, consisting of 1106 words, was divided into 86 segments, with a mean of 12.86 words per segment, or 16.8 syllables (standard deviation for syllables: 8.56). Again 60 readers were recruited from senior level English courses and paid for participating. Five groups of 12 readers each provided ratings for strikingness, affect, importance, discussion value, and imagery.

Again Kendall's Coefficient of Concordance indicated considerable agreement among participants in both their reading times and ratings. And, as indicated in the second column in Tables 2, 3, and 4, we again observed significant correlations between the cumulative foregrounding index and mean reading times, strikingness, and affect, although in this instance semantic rather than phonetic variations underlie the relations with strikingness and affect. Also replicated was the non-significant correlation between the grammatic foregrounding index and mean reading times.

2.4. Study 3

For the third study, our aim was to involve readers who lacked the literary experience, training, and perspective of the first two groups of readers. Readers were 48 students recruited from an Introductory Psychology class at the University of Alberta; they received course credit for participating. These students also read

Table 4
Correlations of foregrounding with ratings

	Study 1 *The Trout*	Study 2 *The Wrong House*	Study 3 *The Wrong House*	Study 4 *A Summing Up*
Ratings for strikingness				
Foreground:				
simple	0.220 [a]	0.362 [d]	0.452 [d]	0.300 [c]
partial	0.297 [c]	0.444 [d]	0.507 [d]	0.460 [d]
Phonetic:				
simple	0.173	0.265 [b]	0.350 [c]	0.319 [c]
partial	0.232 [a]	0.293 [c]	0.369 [d]	0.372 [d]
Grammatical:				
simple	0.093	0.145	0.152	−0.084
partial	0.172	0.178	0.164	0.100
Semantic:				
simple	0.161	0.300 [c]	0.386 [d]	0.341 [c]
partial	0.176	0.390 [d]	0.449 [d]	0.399 [d]
Ratings for feeling				
Foreground:				
simple	0.229 [a]	0.334 [c]	0.289 [c]	0.278 [b]
partial	0.278 [b]	0.376 [d]	0.352 [d]	0.368 [c]
Phonetic:				
simple	0.246 [a]	0.168	0.242 [a]	0.332 [c]
partial	0.287 [b]	0.174	0.257 [b]	0.349 [c]
Grammatical:				
simple	0.102	0.155	0.036	0.043
partial	0.156	0.177	0.068	0.190
Semantic:				
simple	0.097	0.335 [c]	0.290 [c]	0.160
partial	0.100	0.378 [d]	0.357 [d]	0.166

[a] $p < 0.05$; [b] $p < 0.02$; [c] $p < 0.01$; [d] $p < 0.001$ (two-tailed)
Note: Multiple regression models were constructed in which segment position and number of syllables were used as predictors of ratings in addition to foregrounding and its three components. In each of the partial correlations shown, the influence of these two variables has been partialled out.

The Wrong House. As a check on the literary background of these students, they were asked to complete a brief questionnaire on their current reading. As expected, almost all the students reported that they rarely if ever read a literary text except as required in English courses at school or university, although many read popular fiction such as romances, horror fiction, or fantasy. These were students who had less experience reading literary texts and who probably were lower in literary competence than the senior English students from Studies 1 and 2.

In this study, 24 participants provided strikingness ratings and 24 provided affect ratings. It should be noted that, compared to the English students in Study

2, these Psychology students gave significantly lower strikingness and affect ratings to the story, as measured by a matched-pairs t-test. These differences substantiate the contrast between the two groups, suggesting less interest and involvement in the reading process among the Psychology students: strikingness ratings (English: $M = 3.10$, Psychology: $M = 2.69$), $t(85) = 11.084$ (standard error: 0.004), $p < 0.001$; affect ratings (English: $M = 2.65$, Psychology: $M = 2.45$), $t(85) = 5.676$ (standard error: 0.035), $p < 0.001$. Even with these differences, mean reading times were the same in both groups, suggesting comparable levels of general reading skill.

Despite these participants' lack of literary experience, background, and perspective, the main findings of the previous studies were replicated. As indicated in the third column of Tables 2, 3 and 4, the overall foregrounding index was correlated with mean reading times and with strikingness and affect ratings. While in this study normal stresses appear to have made a greater contribution to reading times, when stress was partialled out the relationship of foregrounding to reading times remained significant on a one-tailed test. Both phonetic and semantic foregrounding underlie readers' judgements of strikingness and affect. As before, the correlation between grammatic foregrounding and reading time was negligible.

2.5. *Study 4*

In this study our aim was to replicate Study 3 with a different story. In other words, readers low in literary competence were asked to provide reading times and ratings. The story used was *A Summing Up* by Virginia Woolf. The story was divided into 77 segments, with a mean of 17.34 words per segment, or 24.47 syllables (standard deviation for syllables: 10.65). 30 readers were recruited from Introductory Psychology courses and received course credit for participating. The same check on reading experience was carried out by administration of a reading questionnaire: as before, it was apparent that participants in this study rarely read literature except when required to do so in school or university courses. Half of the readers provided ratings for affect and half provided ratings for strikingness.

As the last column of Table 2 shows, the main effects found in the previous studies were obtained once again. However, as the last column of Table 3 indicates, the correlations between the components of foregrounding observed in previous studies were not replicated. In this study it was the grammatical component that provided the main influence on reading times, although judgements of strikingness and affect continued to be influenced by phonetic and semantic aspects of foregrounding – a disparity in the findings for this story which is not readily explained. It may point to some important differences in the style of the story when compared with the stories of O'Faolain and Mansfield. The Woolf story, for instance, shows a higher frequency of complex phrase structures and use of parallelisms. Typical of Woolf's style, for example, is to offer qualifications, often ironic, in one or more embedded subordinate phrases, such as: "she was glad that she was with Bertram, who could be trusted, even out of doors, to talk without stopping". It will be noted, from Table 5 below, that the occurrence of grammatical foregrounding in the story is not correlated with the occurrence of either

Table 5
Intercorrelations of phonetic, grammatical, and semantic foregrounding in three stories

	The Trout		*The Wrong House*		*A Summing Up*	
	phon	gram	phon	gram	phon	gram
Grammatical	0.228 [a]	–	0.098	–	0.048	–
Semantic	0.265 [b]	−0.093	0.083	0.246 [a]	0.395 [d]	−0.087

[a] $p < 0.05$; [b] $p < 0.02$; [c] $p < 0.01$; [d] $p < 0.001$ (two-tailed)

phonetic or semantic features. Thus, in contrast to the two other stories, Woolf appears to use grammatical deviation as the dominant in the foregrounding structure of her story.

2.6. Related analyses

In each of the studies slightly different components of foregrounding were predictive of reading times. While we noted that a number of the segments in the three stories contained clusters of foregrounded features at all three levels, the three components were not always found occurring together. Correlations of the indices for the three components, shown in Table 5, suggest that the relationship is a variable one: in the Mansfield story, for example, the grammatical and semantic features tend to co-occur, whereas in the Woolf it is the phonetic and semantic. Such differences are partly responsible for differences in the style and tone of one writer compared with another.

It will be recalled that some readers in the first two studies provided other ratings: discussion value (Imagine you were teaching this story to a class of students. What segments in your view would require discussion?), importance (What segments of the story make the most important contribution to its meaning, as you understand it?), and imagery (Decide to what extent a given segment calls up an image in your mind's eye). In Study 2 a reliable correlation was obtained between the cumulative foregrounding index and the mean discussion value rating, but it was not obtained in Study 1. And, in Study 2 (but not in Study 1) there was a significant correlation between the cumulative foregrounding index and the mean importance rating. This difference between the findings is probably due to the different functions of foregrounding in the two stories. In *The Trout* foregrounding is predominantly used to create mood, particularly in relation to setting, with the main narrative events occurring in segments other than those high in foregrounding. In *The Wrong House*, by contrast, the peak occurrences of foregrounding often coincide with the most important narrative events in the story. This suggests that the correlation between foregrounding and importance ratings in the latter study are closely linked to narrative content independently of the novel meanings accentuated by foregrounding.

3. Conclusions

In four studies with three literary stories and four groups of readers, we have shown that the degree to which foregrounding is present in the segments of a story is a predictor of both reading times and readers' judgements of strikingness and affect. By studying readers with different levels of literary competence and interest, we have provided evidence that these effects are independent of literary background and interest. Our current findings, together with the studies described in the introduction, support the view that literary response follows a distinctive course in which foregrounding prompts defamiliarization, defamiliarization evokes affect, and affect guides 'refamiliarizing' interpretive efforts.

The design of our studies enabled concentration on the local aspects of response to foregrounding. With due regard for the limitations of causal inferences based upon correlations, the results are compatible with the notion that there are the moment-to-moment (segment by segment) effects of foregrounding on readers' attentional and affective reactions. To substantiate the causal hypothesis, it may be possible to conduct studies that experimentally vary the complexity of foregrounding structures and then assess effects on reading time, affect, etc. However, we suspect that it will be very difficult to restructure foregrounding in texts experimentally without simultaneously introducing confounding changes in unforegrounded textual meanings. Given these difficulties, in subsequent research it may prove more fruitful to directly assess the interpretive efforts by which refamiliarization occurs. Reading times provide only a coarse indication of the complexity of the interpretive efforts that unfold in response to foregrounding. From our data, it is impossible to determine whether the prolonged contemplation of foregrounded passages enables the gradual emergence of affect, the affect-guided thematization of the present and previous foregrounded passages, the anticipation of affectively congruent story developments – or even other interpretive efforts not anticipated by our model. Clearly further studies, perhaps involving think-aloud procedures, will clarify which interpretive activities ensue. The present observations only suggest that some temporally extended intepretive activity is prompted by foregrounding and that affect is somehow involved (however, cf. Miall, 1989, 1990).

Nonetheless, it is significant that two groups of readers (English and Psychology students) showed similar patterns of local response to foregrounding in the story entitled *The Wrong House*, and that the Psychology student readers also showed a significant response to foregrounding in *A Summing Up*. Our observations replicate and extend to short stories Van Peer's (1986) observation that readers' response to foregrounding is independent of literary background. These results suggest that foregrounding achieves its effects in relation to norms of language use outside of literature, rather than, as Stanley Fish has insisted (Fish, 1980), in relation to norms established within especially trained communities with particular perspectives on what is literary. Thus, readers with general linguistic skills – and either high or low in literary competence – will respond to foregrounding by finding it striking, affectively evocative, and interpretively challenging, even though it is very likely that readers with high levels of literary competence will more

effectively develop a coherent understanding of the meaning of foregrounded passages.

Thus, there remain reasons to question the assumption of many (perhaps most) contemporary literary scholars that there is nothing intrinsically literary about literary texts. This study provides further evidence that foregrounding is indeed such an intrinsically literary quality, directing readers' responses in ways that are probably independent of the influence of whatever education in reading a reader has received. Additional evidence is available in a handful of other empirical studies (Hunt and Vipond, 1985; Miall, 1989, 1990) indicating that foregrounding shapes interpretive strategies that may be distinctive to the literary domain.

But another type of inquiry would reinforce the claim that the response to foregrounding is characteristic of literary texts. Several authors have indicated that, by comparing literary with non-literary texts, the presence of foregrounding in the former could be demonstrated statistically. Both Mukařovský (1977: 21) and Jakobson (1987: 88) pointed to this possibility, and some work towards this goal has been carried out, particularly in the examination of phonetic and metric patterns in Czech and German verse (e.g., Doležel, 1969; Levy, 1969). Studies of this kind should be attentive not only to the probabilities of single features occurring in a text, such as ellipsis or metaphor, but also to the probability of repetitive features, such as alliteration or rhythmic units, and of hierarchically arranged complexes of foregrounded features. Nevertheless, even if the distinctiveness of literary texts is established on such grounds, the question remains whether readers uniformly respond to such foregrounding structures in ways that are characteristically literary. A well justified criticism of Jakobson's linguistic analyses of literary texts is that no studies established whether readers uniformly notice and respond to the parameters that he identified (Riffaterre, 1970). Thus, as Riffaterre (1959) proposed, any statistical study must be complemented by empirical work that determines whether actual readers respond to those stylistic patterns.

We may eventually establish whether foregrounding is the hallmark of literariness, as Mukařovský and his colleagues argued, and whether, as the evidence presented in this paper suggests, the sequence defamiliarization–feeling–refamiliarization is distinctive to literary response. At the moment foregrounding and the response to it seems to us likely to prove a key aspect of the literary domain, and moreover one that is amenable to careful and systematic empirical study. Such study should enable us to decide whether literary response does indeed spring from capacities that are intrinsic to our linguistic endowment.

References

Anderson, C.W. and G.E. McMaster, 1982. Computer assisted modeling of affective tone in written documents. Computers and the Humanities 16, 1–9.

Brewer, W.F. and E.H. Lichtenstein, 1982. Stories are to entertain: A structural-affect theory of stories. Journal of Pragmatics 6, 473–486.

Brown, R., 1958. Words and things. New York: Free Press.

Coleridge, S.T., 1983 [1817]. Biographia literaria, 2 Vols., edited by J. Engell and W.J. Bate. London: Routledge.

Davidson, R.J., 1984. Hemispheric asymmetry and emotion. In: K.R. Scherer and P. Ekman (eds.), Approaches to emotion, 39–57. Hillsdale, NJ: Erlbaum.

Dixon, P., M. Bortolussi, L.C. Twilley and A. Leung, 1993. Literary processing and interpretation: Towards empirical foundations. Poetics 22, 5–33.

Doležel, L., 1969. A framework for the statistical analysis of style. In: L. Doležel and R.W. Bailey (eds.), Statistics and style, 10–25. New York: American Elsevier.

Erlich, V., 1981. Russian formalism: History – doctrine. New Haven, CT: Yale University Press.

Fairley, I.R., 1989. The reader's need for conventions: When is a mushroom not a mushroom? In: W. Van Peer (ed.), The taming of the text: Explorations in language, literature and culture, 292–316. London: Routledge.

Fish, S., 1980. Is there a text in this class? The authority of interpretive communities. Cambridge, MA: Harvard University Press.

Fónagy, I., 1989. The metaphor: A research instrument. In: D. Meutsch and R. Viehoff (eds.), Comprehension of literary discourse, 111–130. Berlin: Walter de Gruyter.

Frazier, L. and K. Rayner, 1987. Resolution of syntactic category ambiguities: Eye movements in parsing lexically ambiguous sentences. Journal of Memory and Language 26, 505–526.

Glucksberg, S., 1991. Beyond literal meanings: The psychology of allusion. Psychological Science 2, 146–152.

Halász, L., 1989. Social psychology, social cognition, and the empirical study of literature. Poetics 18, 29–44.

Harker, W.J., in press. Toward a defensible psychology of literary interpretation. In: R.J. Kreuz and S.M. MacNealy (eds.), Empirical approaches to literature and aesthetics. Norwood, NJ: Ablex.

Heilman, K.M. and D. Bowers, 1990. Neuropsychological studies of emotional changes induced by right and left hemispheric lesions. In: N.L. Stein, B. Leventhal and T. Trabasso (eds.), Psychological and biological approaches to emotion, 97–113. Hillsdale, NJ: Erlbaum.

Hidi, S. and W. Baird, 1986. Interestingness – A neglected variable in discourse processing. Cognitive Science 10, 179–194.

Hoffstaedter, P., 1987. Poetic text processing and its empirical investigation. Poetics 16, 75–91.

Hunt, R. and D. Vipond, 1985. Crash-testing a transactional model of literary reading. Reader: Essays in Reader-Oriented Theory, Criticism, and Pedagogy 14, 23–39.

Jakobson, R., 1987. Language in literature. Edited by K. Pomorska and S. Rudy. Cambridge, MA: Harvard University Press.

Joanette, E., P. Goulet and D. Hannequin, 1991. Right hemisphere and verbal communication. New York: Springer.

Kintsch, W., 1988. The role of knowledge in discourse comprehension: A construction-integration model. Psychological Review 95, 163–182.

Kintsch, W. and T.A. van Dijk, 1978. Toward a model of text comprehension and production. Psychological Review 85, 363–394.

Kuiken, D. (ed.), 1991. Mood and memory: Theory, research and applications. Newbury Park, CA: Sage.

Kutas, M. and S.A. Hillyard, 1982. The lateral distribution of event-related potentials during sentence processing. Neuropsychologia 20, 579–590.

Labov, W., 1972. Language in the inner city. Philadelphia, PA: University of Pennsylvania Press.

Levy, J., 1969. Mathematical aspects of the theory of verse. In: L. Doležel and R.W. Bailey (eds.), Statistics and style, 95–112. New York: American Elsevier.

Martindale, C., 1984. Evolutionary trends in poetic style: The case of English metaphysical poetry. Computers and the Humanities 18, 3–21.

Miall, D.S., 1988. Affect and narrative: A model of response to stories. Poetics 17, 259–272.

Miall, D.S., 1989. Beyond the schema given: Affective comprehension of literary narratives. Cognition and Emotion 3, 55–78.

Miall, D.S., 1990. Readers' responses to narrative: Evaluating, relating, anticipating. Poetics 19, 323–339.

Miall, D.S., 1992. Response to poetry: Studies of language and structure. In: E.F. Nardocchio (ed.), Reader response: The empirical dimension, 153–170. The Hague: Mouton.

Miall, D.S. and D. Kuiken, in press. Beyond text theory: Understanding literary response. Discourse Processes.

Mukařovský, J., 1964 [1932]. Standard language and poetic language. In: P.L. Garvin (ed.), A Prague School reader on esthetics, literary structure, and style, 17–30. Washington, DC: Georgetown University Press.

Mukařovsky, J., 1977. The word and verbal art. Edited and translated by J. Burbank and P. Steiner. New Haven, CT: Yale University Press.

Olson, G.M., R.L. Mack and S.A. Duffy, 1981. Cognitive aspects of genre. Poetics 10, 283–315.

Osterhout, L. and P.J. Holcomb, 1992. Event-related potentials elicited by syntactic anomaly. Journal of Memory and Language 31, 785–806.

Riffaterre, M., 1959. Criteria for style analysis. Style 15, 154–174.

Riffaterre, M., 1970. Describing poetic structures: Two approaches to Baudelaire's *Les Chats*. In: J. Ehrmann (ed.), Structuralism, 188–230. Garden City, NY: Anchor Books.

Schmidt, S.J., 1982. Foundations for the empirical study of literature. Translated and edited by R. de Beaugrande. Hamburg: Helmut Buske.

Shelley, P.B., 1988 [1840]. Shelley's prose. Edited by D.L. Clark. London: Fourth Estate

Shklovsky, V., 1965 [1917]. Art as technique. In: L.T. Lemon and M.J. Reis (eds. and trans.), Russian formalist criticism: Four essays. Lincoln, NE: University of Nebraska Press.

de Sousa, R., 1987. The rationality of emotion. Cambridge, MA: MIT Press.

Van Dijk, T.A., 1979. Cognitive processing of literary discourse. Poetics Today 1, 143–159.

Van Peer, W., 1986. Stylistics and psychology: Investigations of foregrounding. London: Croom Helm.

Van Petten, C. and M. Kutas, 1990. Interactions between sentence context and word frequency in event-related potentials. Memory and Cognition 18, 380–393.

Wellek, R. and W. Warren, 1976. Theory of literature. London: Peregrine.

Winner, E. and H. Gardner, 1977. The comprehension of metaphor in brain-damaged patients. Brain 100, 717–729.

Zwaan, R.A., 1991. Some parameters of literary and news comprehension: Effects of discourse-type perspective on reading rate and surface structure representation. Poetics 20, 139–156.