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Pynchon, postmodernism and quantification: an empirical content analysis of Thomas Pynchon's *Gravity's Rainbow*

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Abstract

Thomas Pynchon's *Gravity's Rainbow* (1973) has been received as a canonical instance of postmodernism. The novel appears to subvert traditional definitions of plot and characterization, yet the narrative retains a nagging sense of order underneath the represented chaos. Simultaneously evoking and undoing patterns on all levels of its narrative structure, *Gravity's Rainbow* surreptitiously evokes the presence of a night journey (Martindale, 1979). An empirical content analysis of the novel confirms this ambiguous attitude with respect to patterning in the novel, and thus constitutes a first and modest step towards the quantification of postmodernism. First, a thematic analysis, calculating the co-variations of words across the chapters, corroborates the idea of a connectedness that seems to belie, in part, the pervasive presence of a paranoid hermeneutic. Second, a dictionary-based analysis of narrative sequences reveals an inverse night journey pattern that differs markedly from other patterns found for modernist novels. The configurations that were obtained in these analyses show that content analysis can distinguish empirically between two literary – historical concepts.

Keywords: computer-assisted content analysis; Gravity's Rainbow; night journey; postmodernism; Pynchon, Thomas; regressive imagery; thematics

1 Introduction

Thomas Pynchon's 1973 novel *Gravity's Rainbow* (GR) assumes a canonical status in current literary history. It is commonly regarded as a strong – perhaps even the best – example of 'postmodernism', a term with various meanings (Bertens, 1995), which for the purpose of our analysis will be limited to their relevance for the study of literature. The interpretation of *Gravity's Rainbow* as a postmodern book gradually took shape in the 1980s. In Charles Clerc's influential collection of essays, *Approaches to Gravity's Rainbow* (1983), the crucial term is used by only one contributor (Charles Russell), and in his introduction Clerc significantly refrains from including 'postmodern' or 'postmodernism' in his sizable summary of Russell's article. Towards the end of the decade, however, monographs such as *Poetics of Postmodernism* (1988) by Linda Hutcheon and especially *Postmodernist Fiction* (1987) by Brian McHale put the seal on the reception of GR as a near perfect catalogue of what demarcated contemporary



literature from modernism (embodied by authors like James Joyce, Virginia Woolf and T.S. Eliot). A definitive study of the canonization of GR remains to be written, but it seems fair to say at this point (using the categories proposed by van Peer, 1997) that the inclusion of the novel in the postmodern canon, though largely based on aesthetic properties of the text, was also helped by political-ideological factors in the sense that the novel exudes a spirit of subversion which came up to the left-of-centre needs of vanguard academic criticism in the 1980s.

The aesthetic characteristics of postmodernism (see e.g. Hassan, 1971; Jameson, 1984; McHale, 1987; Hutcheon, 1988; and also Bertens and D'haen, 1988) include the undermining of patterns whose sophistication has been one of the guiding principles of modernism (as it is now perceived, see e.g. Eysteinsson, 1990). By 'undermining' we mean that, in the course of the literary text, the viability of a pattern for the reader is at least called into question and sometimes even reduced to zero. Examples of this tendency range from a character undergoing arbitrary name changes in the course of the text, over the intentional confusion of narrative levels, to the production of several endings to the same plot.

The empirical analysis of these and other postmodern characteristics is still outstanding, and the following analysis of GR is meant as a modest step in that direction. Our purpose is double. On the one hand, we want to test the limits of a specific kind of empirical research, particularly of computer-aided content analysis, which up until now has been applied to less complex corpuses, such as essay titles in social studies journals (Hogenraad et al., 1995b) or the stories of Edgar Allan Poe (Martindale, 1978). On the other hand, we seek to corroborate with empirical evidence some of the received notions about GR and its narrative instabilities and postmodern aesthetics.

In order to undermine a conventional pattern, a text must somehow evoke it. For parody to be successful, for instance, it must clearly suggest (aspects of) the 'target text' (Hutcheon, 1985; Rose, 1993) to which it reacts. Similarly, if an author wants his or her audience to confuse characters or narrative levels, he or she is virtually obliged to separate them in the first place, an operation which is likely to leave its traces in the surface text. As one of us has demonstrated (Herman, 2001), the postmodernism of GR as described by its academic readers resides in the fact that this novel simultaneously calls forth and deconstructs patterns on all its levels. Zooming in on one of these patterns, we submit that GR champions other postmodern novels by suggestively embedding the narrative order of the 'night journey' (Martindale, 1979), which at first sight seems to be conspicuously and intentionally absent from most of the text, despite an important evocation of it at the beginning. This underlying presence of the night journey further implies that *definite* connections exist in this notoriously indefinite novel, and as such it goes against the principle of creative paranoia expressed in the text itself, a state of mind in which everything is apparently constantly and interestingly connected to everything else.

Martindale has defined the night journey as 'the widespread mythic and

literary theme of a visit to hell or some analogue of hell' from where 'the hero makes his way back to the real world where he often enjoys knowledge or power gained by virtue of his journey' (1979: 321, 322). Using his own Regressive Imagery Dictionary (included in Martindale, 1975) to analyse the primary process content that finds its way into well-known night journey texts such as Book VI of Virgil's *Aeneid* and Joseph Conrad's *Heart of Darkness*, Martindale (1979: 328ff.) was able to show that the number of primary process words (expressing thought that is concrete but associative and drive-oriented, manifesting itself prior to rational behaviour, such as sex, love, food, dream, etc.) always rises and falls in the case of such a typical quest with a positive outcome. The number of secondary process words, on the other hand, expressing rational or conceptual content thought (thought that is constructed, the result of abstract or analytical behaviour, such as money, work, discipline, law, etc.), usually drops, to rise again when the hero returns to the world. A similar content analysis of short stories by Edgar Allan Poe (Martindale, 1978) led to the concomitant observation that an 'unsuccessful' night journey, at the end of which evil prevails and the hero is most often destroyed, results in a pattern that is the exact opposite with respect to primary process words. Unsuccessful night journey narratives are characterized by a substantial drop of primary process words in the middle of the text followed by a rise towards the end, signalling a failed attempt to escape a regressive state of consciousness.

While the examples in Martindale (1979) readily allow for a night journey-oriented hypothesis on the basis of their plot summary, GR could be felt to preclude such a straightforward move because of the simple fact that its protagonist, Tyrone Slothrop, strangely disappears from the book long before it comes to an end. Slothrop even admits, albeit in a state of delirium, that his mission to find a special rocket component and his subsequent visit to the mountain at Nordhausen, the V-2's secret assembly site, are far from amounting to a Grail-like quest (GR 364). However, at first sight one could argue for the fact that Slothrop's function in the plot is taken over by a group of characters, the so-called Counterforce, who may be felt to have been on his side all along. This suggestion might oversimplify the plot, but the idea of sides is certainly crucial to Pynchon's plot. Slothrop is an American officer who in 1944 has been stationed in London. A map in his office (the reliability of which goes unquestioned within the fictional world) indicates that his moments of sexual arousal have all taken place in locations where, shortly afterwards, a deadly V-2 rocket has come down. Slothrop departs for continental Europe in order to investigate this connection between his erections and the V-2, and he rapidly develops a paranoid state of consciousness in which *They* (whoever they are) are out to get him.

Paranoia constitutes a central and highly complex theme of the novel. At one point the narrator suggests that paranoia is 'nothing less than the onset, the leading edge of the discovery that *everything is connected*, everything in the Creation, a secondary illumination – not yet blindingly one, but at least connected, and perhaps a route In [sic] for those [. . .] who are held at the edge'

(703). Earlier on, when Slothrop is trying to find a friend in Berlin, there is a related statement: 'If there is something comforting – religious, if you want – about paranoia, there is still also anti-paranoia, where nothing is connected to anything, a condition not many of us can bear for long' (434). The opinion one might derive from these two crucial quotations (which critics keep referring to, see e.g. Bersani, 1990 and Herman, 1999) could be that 'we' need a certain amount of order, and that this necessity may lead to magnificent moments of insight. Two important questions remain unsolved in the novel: (1) Are these connections and the systems to which they lead real or imagined? And (2) To what extent are these 'delusional systems', as one character resolutely decides to call them (638), manipulated by *Them* or (conversely) to what extent are they authentic products of one man's psyche? Whatever the answers to these questions, a great number of characters construct/find order so as to come to terms with what they at first sight initially perceived as the chaos around them.

The doubts that beset the patterns of connections within the plot are typical of GR. Critics also agree (see e.g. Hite, 1983; Moore, 1987) that Pynchon does to the reader most of what he inflicts on the characters. He produces a very high number of motifs, some of which only seem to be there for the sake of their status as a motif, and even significantly includes a 'connectedness' motif (whose many instances are available from Tim Ware's Pynchon website at <http://www.hyperarts.com/pynchon/gravity/gravity-nf.html>). The uncommon number of small links between elements on various levels of the book rapidly turns the alert reader into a system builder whose ultimate frustration at not being able to say whether everything really holds together equals the impossibility within the plot of solving the mystery surrounding Slothrop's Londonian erections.

Early on in the novel, this central mystery leads to expectations on the part of the reader concerning a potential night journey. Given its highly unusual cause – a weird parallel between erections and impact craters – the stakes of this journey are of course surreal and therefore perhaps already called into question to begin with. And yet, just like a regular hero, Slothrop might venture out, suffer his way through a number of trials and then either come out a wiser man or be destroyed. Slothrop does start off on a journey to continental Europe. But the reader's expectations are frustrated by the fact that the novel loses sight of the erection question for long stretches of text. But it will always resurface, as when Slothrop remembers he has been conditioned in his youth by a Harvard professor who has also developed a fabric used in the V-2. Slothrop's occasional confrontation with those who are out to get him amounts to a test as we know it from the typical examples of the night journey. Since the erection question is dealt with now and again, this aspect of the plot remains one of the few elements that allow the reader to tie all the episodes of this 760-page novel together. To put it differently, there is a nagging sense that a (kind of) night journey is being staged all the same and Slothrop's disappearance from the plot could be read as a sign of his destruction and failure.

2 Methods

2.1 Data

Scanning Pynchon's *Gravity's Rainbow* yielded, after correction for misreading, a total of 336,161 words, 28,762 of which are different ones. The novel consists of four parts, which together make up 73 sections, separated in the novel by short straight lines of small squares. These 73 sections have formed the units for the content analysis.

2.2 Content analysis

We conducted our analysis of GR with the help of PROTAN (acronym for 'PROTOCOL ANalyzer'), a computer-aided content analysis system developed by Hogenraad et al. (1995a). Detailed technical information is available at <http://www.psor.ucl.ac.be/protan/protanae.html>. Analysing the content of, say, the 73 sections of Pynchon's GR is like directing a Geiger counter at them. The detector clicks to specific properties of the object it is directed to. If the property is absent, the counter remains silent; if the property is present, the counter clicks, and its presence can be registered and plotted on a graph. PROTAN rests on two major models of empirical content analysis: the substitution model, whereby dictionary categories are substituted for the words of a text to detect content thought patterns that drive the text in question; and the thematic or contextual model, which analyses the co-variations of word-to-word contiguities of the actual words in the text in order to identify meaningful clusters of words, i.e. themes (Hogenraad, 2002). Before any analysis takes place, the removal from the text of most of the verb inflexions, noun plurals and adverbial suffixes slightly reduces the number of different word entries.

Categorizing The substitution model is a quasi-experimental procedure in the sense that, having selected a list of words (such as sensate words), all the words of the text are compared to all the words of the list or dictionary, usually divided according to a number of categories. Then the number of word matches are counted in each category to calculate the percentage of the number of word matches. We used Martindale's Regressive Imagery Dictionary (consisting of 2483 words distributed across 29 categories expressing sensate thought and 7 categories of symbolic thought) to measure GR's primary thought content across a diachronic pattern. The rationale behind the dictionary rests on the idea that the words in the text reflect the psychological processes that came with its production (Martindale, 1978: 293, 1979: 324) or, in the case of literary texts, that exist within the narrative structure.

The validity of the Regressive Imagery Dictionary has been established by measuring the presence of sensate thought in texts in which such processes were the driving force behind lexical changes. In Dante's *Divine Comedy*, for instance,

the frequency of sensate words increases as the hero makes his descent into the inferno and simultaneously experiences a psychological regression from analytic to free-associative thought. The frequency of sensate words decreases as the hero returns from purgatory (Martindale, 1979). Stories produced under the influence of drugs (Martindale and Fisher, 1977; West et al., 1983) contain more sensate words than those produced under the influence of a placebo.

The accompanying affect (pleasantness and arousal) was assessed using the dictionaries of Whissell et al. (1986) and Pennebaker and King (1999). As Johnson-Laird and Oatley (1989), Miall (1988, 1992) and Bestgen (1994) have shown, the validity of these dictionaries of affect rests on the principle that the weight of a text on one of its affective dimensions can be derived from the weight of its component words on that specific dimension. Each word in the Whissell dictionary has been rated by 30 judges on a 7-point scale of pleasantness and arousal.

With reference to Martindale's hypothesized profile regarding (unsuccessful) night journeys, we can predict that an inverse night journey will produce a decrease and subsequent increase in words expressing sensate thought. In terms of affect, the inverse night journey will end with an increase in negative emotions.

Thematizing In the contiguity model, we look for combinations of words present simultaneously within a given narrative episode or chapter. In this model a theme is defined as a cluster of words with different meanings that co-vary. In a text, not all the words co-vary to the same extent: some do (positive correlation), some do not (null or insignificant correlation) and still others do in such a way that when some words are present, others tend to be absent or less present (negative correlation). Words that correlate positively or negatively with each other cluster into what is called a factor, i.e. a list of words that in effect appear in each other's proximity. Of the words with a certain frequency of occurrence (determined as a function of the total number of words in the novel), the ones with the highest average correlations (ignoring function words) were retained for further analyses. A double-entry table was then arranged, containing the frequencies of the selected words distributed across the 73 sections of the novel. Correlations were computed between the words of this table across the sections and factor-analysed.

2.3 Lexical change

A text's lexicon can change in two major ways, either by new words being added to the novel or by old ones being dropped. If all the words disappear, there is no lexicon any more, but if all the words are new, intelligibility deteriorates. Between these extremes, there is room for development. We computed a rate combining new words added to each section and the old ones dropped from each section (cf. Martindale, 1990: 132–9). The appearance of new words in the 73 sections of GR, and the disappearance of older ones from them, may mark turning-points in the plot. Such turning-points presumably correspond to new thematic challenges.

2.4 Resampling

The nature of measurement in science is always artificial. As a result, scientists always repeat the experiments while varying the experimental conditions. It is easy to imagine that analysing a single novel, as we have done, precludes even the 'probable knowledge' (Shapin, 1996: 101) that science ordinarily arrives at. However, if we cannot have several versions of Pynchon's GR, we can mimic what we cannot have.

Each profile in the analyses by dictionary was resampled 2000 times using a mathematical procedure known as bootstrap algorithm (Péladeau, 1996). That is, for each variable (such as sensate thought content) the data of each observation are repeated millions of times; 2000 samples of the series are then recreated by random sampling with replacement from this reservoir of mimicked data, each sample having the same length as the original series. For example, one sample might contain section 3 of the novel three times, section 4 two times, and section 5 not at all, and so on until the simulated sample contains the same number of observations as the original novel. For each simulated sample, one then calculates the statistical estimators one is interested in. The value of the estimator will differ in each of the 2000 versions, sometimes even to the point of being non-significant. But 2000 results should get us closer to the true values of the predictors than a single one.

3 Results

3.1 Lexical variations

In Figure 1, we show what happens when we compare in a reiterative way the words of each section to those of all the preceding ones. Thus the first observed values (small plain triangles as they appear in the top left-hand corner of the figure) result from the comparison of the words of section 2 to those of section 1. We then compare the words of section 3 to those of sections 1 and 2, and so on until the last observed value – the one just above 0.90 in the bottom right-hand corner of the figure, which results from the comparison of the words of section 73 to all the words of the preceding 72 sections. We may reasonably expect from a narrative to see old words disappear and be replaced in part by new ones. In GR, the rate of replacement of old words by new ones is quite marked from section 31 on, and subsides only toward the end ($R^2 = .34$, $F [3, 67] = 11.7$, $p < .0001$). In other words, 34 percent of the variability of the observed values (the small plain triangles) is explained by the line that unfolds as a U followed by an inverted U, a profile that could occur by chance once out of 10,000. The expected inverted-J trend is offset by a sharp increase of new words, which contributes to the surface complexities confronting the struggling reader.

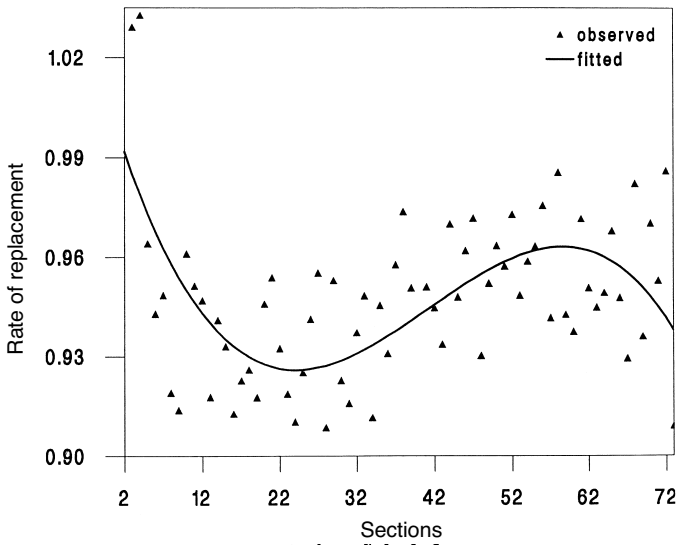


Figure 1 Lexical change over the 73 sections of *Gravity's Rainbow*

3.2 Thematic analysis

From the analysis of the correlations between the 83 words with the highest associative values, we decided to retain three factors. The choice of three factors was both conservative and arbitrary. Since this is the first attempt at an empirical thematic analysis of Pynchon's rather difficult novel, we opted for exploring a

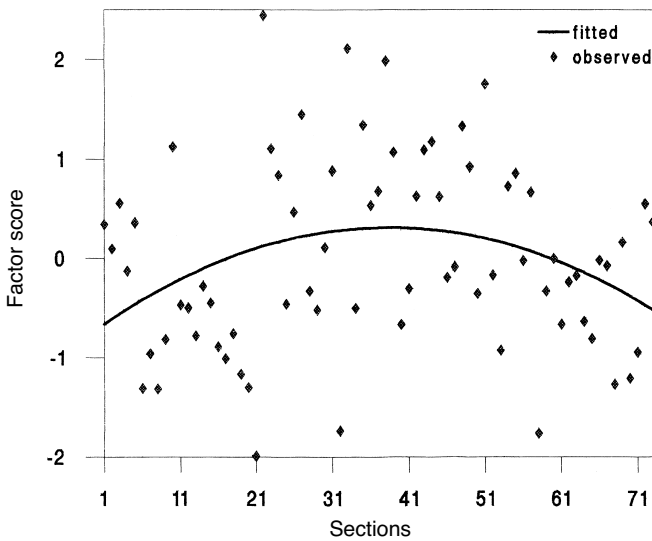


Figure 2 Profile of factor 1 over the 73 sections of *Gravity's Rainbow*

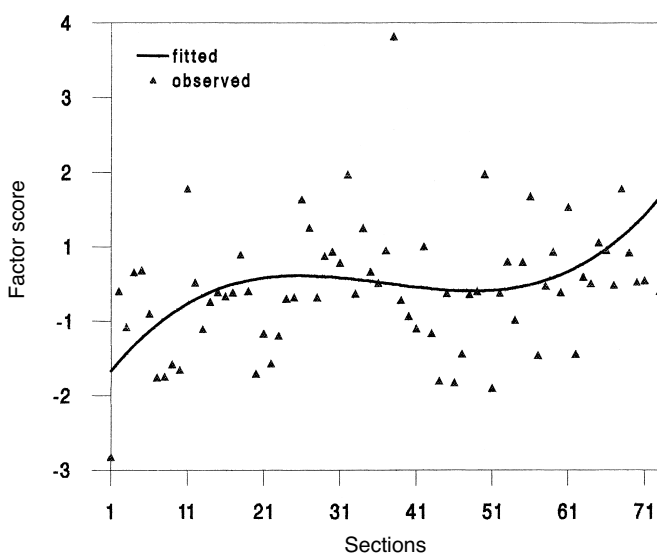


Figure 3 Profile of factor 3 over the 73 sections of *Gravity's Rainbow*

few basic themes, knowing that even so we might find it hard to make sense of them. Table 1 presents the factor loadings (i.e. the strength of the presence of a word in the factor that summarizes them all) of factors 1, 2 and 3. This means that whenever one word appears (e.g. *Slothrop*), the presence of the other words on the list (e.g. *head*) in the text is not random. We can also follow the relative presence of each factor as the novel unfolds (Figures 2 and 3). The inverted U-shaped unfolding of factor 1 is just perceptible ($R^2 = .09$, $F [2, 70] = 3.5$, $p < .05$). The unfolding of factor 2 is not statistically significant. The unfolding of factor 3 is clearly marked ($R^2 = .17$, $F [3, 69] = 4.58$, $p < .01$).

The interpretive complexity of Pynchon's novel makes the contextual approach less suited for analysis; it is possible to produce statistically significant patterns of co-varying words, but finding their meaning is not always without difficulty. As the reading experience of GR and the practice of empirical content analysis teach us, we are faced with the 'permanent paranoid suspicion' that other interpretations are possible (Hogenraad et al., in press).

Despite these difficulties in establishing meaning, it is not true that the above factors are completely meaningless either. Factor 1, which we have called 'Slothrop and Them, or Slothrop's Paranoia', singles out an important pattern of meaning. At first sight, factor 1 indeed appears to us without sense: among the negative values, such opposites like *war/love* and *live/die* tend to appear together. In itself, the contextual co-variation of these words is not unnatural as they are often paired in everyday language. However, what is puzzling is that one would expect some words among these paired opposites to show a positive correlation with the cluster of words around *Slothrop* on the left. What we see, however, is that a number of idyllic words – such as *sun*, *little*, *tree*, *green*, *friend* – have a

Table 1 Factor loadings (Varimax) of 83 associationally rich words from *Gravity's Rainbow*

Factor 1 (8.8% of variance): Slothrop and Them (Slothrop's Paranoia)			
Slothrop	.79	hope	-.41
head	.52	war	-.42
sun	.50	believe	-.44
little	.47	love	-.44
tree	.44	true	-.45
foot	.42	dream	-.48
green	.41	live	-.52
friend	.41	die	-.54
		world	-.54
Factor 2 (8.04% of variance): Not interpretable			
break	.67	pass	.45
sleep	.65	match	.44
wait	.64	face	.43
half	.61	young	.43
sky	.56	side	.42
eye	.52	night	.41
shadow	.49	work	-.43
wind	.48	run	-.48
Factor 3 (7.8% of variance): In the Zone			
Germany	.68	gray	-.41
Tchitcherine	.66	red	-.41
young	.59	foot	-.44
name	.59	morning	-.45
Enzian	.55	window	-.48
word	.45	open	-.48
tree	.43	move	-.49
zone	.40	fall	-.51

negative correlation with other words having positive or uplifting associations – such as *hope, love, true, live*. The latter, however, all belong to existential or religious discourses, to a system, and here lies a crucial difference that points to GR's paranoid thematization of Us versus Them. War and religion (*hope, believe*) are instruments in the hands of Them over which Slothrop has no control; to say the least, they are subservient to industry: 'we are meant for work and government, for austerity: and these shall take priority over love, dreams, the spirit, the senses and the other second-class trivia that are found among the idle and mindless hours of the day . . .' (177). If Slothrop cannot have 'hope' because he belongs to the Preterite (a Puritan term for those passed over by God), he must settle for something different. GR allows for a space in between, a space where Slothrop can escape control at least temporarily. This space can be the Zone, which is Pynchon's term for occupied Germany just before the end of the Second

World War. With its carnivalesque evocation of a wacky *Indiana Jones*-type plot it falls, on one level, between the lines of history where

maybe for a little while all the fences are down, one road as good as another, the whole space of the Zone cleared, depolarized, and somewhere inside the waste of it a single set of coordinates from which to proceed, without elect, without preterite, without even nationality to fuck it up ... (GR 556).

Slothrop's desire for such spaces and moments of tranquility is every so often evoked in the novel. Not that he genuinely can escape from Their control – he can never be sure of that – but he can at least choose to forget it. The most striking word, in this context, seems *friend*. Friendship, as opposed to the impossibility of love, appears in the novel as the only genuine human quality that is not radically undermined. The War keeps lovers apart; the Rocket, fetishistically, is 'programmed in a ritual of love' (GR 223). Friends might vanish unexplained but at least friendship is not betrayed.

Factor 3, 'In the Zone', has less extensive ramifications for interpretation than factor 1. The words *Germany* and *zone* make it unambiguously clear where we are. We cannot make full sense of the words in the right column, although there is a suggestion of movement and of liminality. The contrast between the columns would be appropriate, because the Zone is an ambivalent space. A highly regulated, militarized region, in one sense, it has the potential for openness and a new beginning following its present apocalyptic state. The point, however, is that the contiguity analysis corroborates the connective nature of a postmodern text like GR. Siegel (1978: 35) calls this connective quality a postmodern response to the modernist desire to capture reality in its essence and totality, so that 'it implicitly denies the full discursive powers of the mind to generalize about and interpret experience'. The presence of connections that lack transparency and a sense of definite meaning is what drives Pynchon's novel.

3.3 Dictionary analysis

The rate of primordial processes in GR unexpectedly failed to show any statistically significant trend that could signal the presence of the night journey pattern, either in its successful or in its unsuccessful variety. However, the negative result cannot be attributed only to the complex narrative structure of the novel. (There simply might be more variability, resulting in erratic peaks and drops, within the segments than across them [Martindale, 1979: 330, 335].) While other night journey narratives like Joseph Conrad's *Heart of Darkness* (Martindale, 1979) or James Joyce's *Ulysses* do not yield results as clear as those for e.g. Dante, the rates of primordial process in these texts nevertheless show more regularity. The graph for *Heart of Darkness*, in which Marlow's journey in and out of the African jungle suggests a journey to the depths of some dark world, consists of multiple increases in primordial thought; whereas the content analysis does not confirm a clear night journey, the consecutive peaks in regressive

thought correspond to the meaningful moments in the plot (Martindale, 1979: 335, 340–1). In *Ulysses* the rate of primordial processes ($R^2 = .22$, $F [1, 70] = 19.37$, $p < .0001$) decreases steadily over the 18 chapters, indicating the novel's growing degree of abstraction (particularly noticeable in the penultimate chapter, 'Ithaca', with its language borrowed from scientific writing). Possibly, the deviations in either case from the results for an author like Dante can be explained with reference to the typically ambivalent nature of the plot in the modernist novel. In *Heart of Darkness*, on the one hand, Marlow fails to bring the journey to a satisfactory resolution but the hero is not destroyed either. In *Ulysses*, on the other hand, it is our belief that Bloom's descent into the underworld in the 'Hades' chapter is not connected to any considerable gain of knowledge.

Interestingly, when we divide every section of GR into 50 equal parts and then connect each consecutive part with its 72 equivalents – a procedure we dub 'segmental analysis' – in order to produce an average section that mimics the novel's plot development, the graph shows clear evidence of an inverse night journey; see Figure 4: ($R^2 = .22$; $F [2, 47] = 6.48$, $p < .01$). In order to interpret this outcome properly, we believe it must be seen in conjunction with the strong result of the segmental analysis performed for the category of negative emotions. Indeed, the average section also provides a clear graph when it comes to the rate of these emotions – see Figure 5 ($R^2 = .42$, $F [2, 47] = 16.8$, $p < .0001$) – since it shows a clear ascent.

The sequential primary process analysis of GR allows us to rule out a conventional night journey. The 'nagging sense' (mentioned earlier) that this structure nevertheless informs the novel, not least because it is so clearly

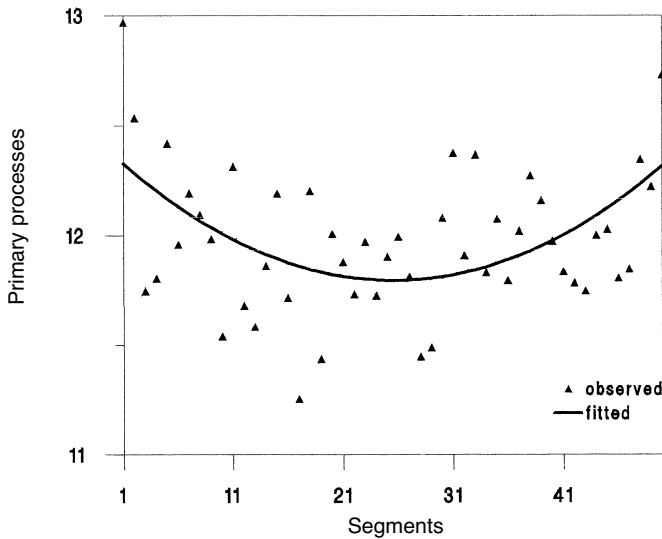


Figure 4 Profile of sensate words (primary processes) in *Gravity's Rainbow*, re-arranged into 50 narrative segments

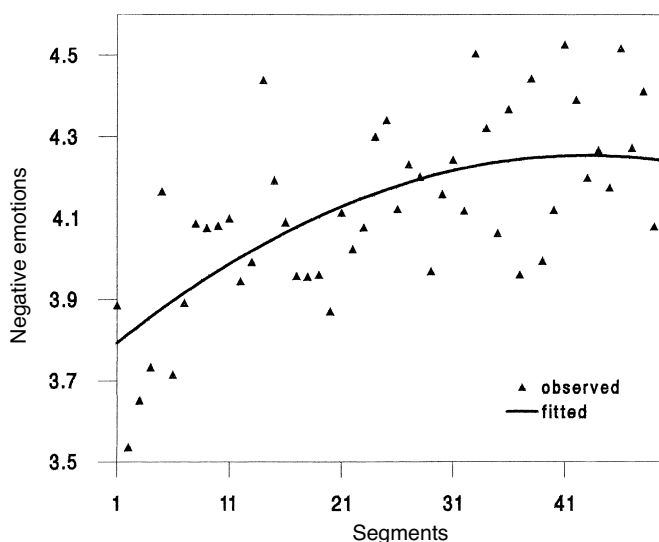


Figure 5 Profile of negative emotions in *Gravity's Rainbow*, re-arranged into 50 narrative segments

suggested at the beginning and re-evoked at various moments in the course of the novel, does find confirmation in the analysis we call segmental. We believe that this result can be made useful for an understanding not only of the novel's structure, but also of the effect this structure has on the audience. The text is apparently organized in such a way that every section tends toward the unsuccessful night journey. Since no section can claim priority over another with respect to this 'alteration of consciousness' (Martindale, 1979) on the part of the protagonist, it seems that Slothrop is intentionally caught in a sequence of frustrations – which is also borne out by the rise of the negative emotions rate in the segmental analysis. Remarkably, the findings indicate that this development continues even after the protagonist has disappeared from the plot, which seems to suggest that the characters who are on Slothrop's side do take over one of his functions after all. Nicely conditioned by the (continued yet fragmentary) evocation of the night journey, the reader may experience the sequence of frustrations as an almost subliminal confirmation of the pattern he or she is looking for. Yet the pattern is so subtly embedded that the text leaves its audience with the ambiguity it also bestows on certain events of the plot.

4 Concluding remarks

What does the content analysis of GR suggest? Since the simultaneous construction and undermining of patterns have been proposed as an important if not central characteristic of postmodernism, we conclude that our content analysis

has revealed a sophisticated instance of this postmodernist strategy in GR. Given the substantial differences concerning the night journey between the results for Pynchon's novel and those for *Heart of Darkness* and *Ulysses*, and assuming on the basis of current literary history that each of these books represents the pinnacle of a specific poetics, we could go one step further and venture the suggestion that we may have put our finger on an empirically verifiable distinction between postmodernism and modernism. Although we have selected our corpus in view of its canonical status, so that our results should, logically speaking, have validity for the rest of the literary texts they link with, the development of our findings concerning the novel's reception obviously remains subject to further empirical confirmation.

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