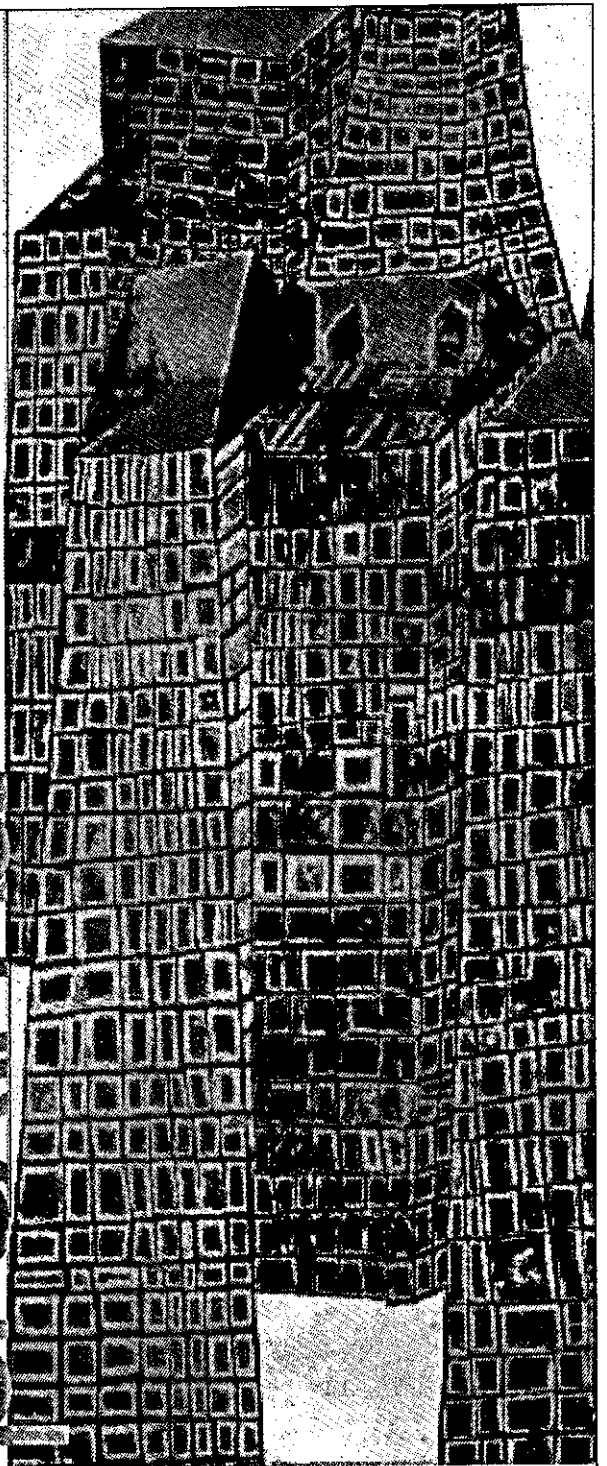# Analysis of Lexical Chains and Coherence in a Children's and News Story

Marcelino Torrecilla N.

próxima zona

HUNDERTWASSER, F. *Casas sangrantes*, 1952 (Fragmento)

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RESUMEN

Este artículo tiene como objetivo encontrar cadenas lexicales en dos textos , un cuento infantil y una noticia, y ver como dichos textos crean coherencia. En este estudio las cadenas fueron seleccionadas bajo el criterio de que sus miembros estuvieran semánticamente relacionados por medio de sinonimia, antonimia, hiponimia, meronimia y repetición. Bajo esta sistema de análisis, la coherencia se encontró algo debilitada en partes de los dos textos. Esto corroboraría el hecho de que la presencia de cadenas lexicales no siempre hacen que los textos sean coherentes. Otros descubrimientos interesantes muestran la dependencia de los textos ya sea en referencias lexicales o gramaticales.

PALABRAS CLAVE: Cadenas lexicales, Cohesión, Coherencia, Sinonimia, Antonimia, Hiponimia, Meronimia , Repetición

ABSTRACT

This article aims to find lexical chains in two texts, a children's and news story, and see how they make for coherence. In the study chains were selected under the criterion that their members were semantically related by Synonymy, Antonymy, Hyponymy , Meronymy and Repetition. Under this analysis framework, it was found coherence to be a somewhat flawed in parts of both texts. This would attest to the fact that the presence of lexical chains does not always make texts coherent. Other interesting findings show reliance of the texts on either lexical or grammatical references.

KEY WORDS: Lexical Chains, Cohesion, Coherence, Synonymy, Antonymy, Hyponymy, Meronymy, Repetition.

1 Introduction

In this research lexical chains will be looked at and how these make for coherence in two texts. Text 1 is a children's story entitled *«Seagull and the coming of light».* Text two is a news story entitled *«Corruption charges against billionaire brothers over Indian arms deal».*

The presence of lexical chains should be linguistic evidence that texts are not constructed in a disorganised manner and that the chains constitute a valuable resource that contributes to the structuring and coherence of texts. However, it is also true that the presence of lexical chains does not necessarily mean that texts are coherent, which makes this phenomenon a complex issue. The analyses of the above-mentioned texts will provide the opportunity to discover the lexical chains they are expected to have and see whether these chains show that the texts are coherent.

I shall start by presenting relevant theories that will enable me to set out the basis for the analyses and discussions. I shall then present the materials and methods section in which analysis procedures, texts description and rationale for text choice will be explained. Afterwards I shall proceed to look at the results describing each chain in terms of type of chain and relation of its members. Discussion of results will ensue where I shall analyse the results in more depth. Finally a conclusion will summarise the main aspects of the research work.

2 Relevant theories

I shall first start by setting out a theoretical explanation as regards coherence, cohesion and lexical chains.

2.1 COHERENCE AND COHESION

Coherence is a mental process that takes place in the reader's or listener's mind and not a factor related to the physical text or the oral interaction. Gernsbacher and Givon (1995) assert that:

> *Coherence is not an inherent property of a written or spoken text. Readers and listeners can indeed judge with high agreement that one text is more coherent than another. But neither the words on the page nor the words in the speech confer coherence.* (Gernsbacher and Givon ,1995: vii)

When someone reads or listens to a coherent text some assumptions are tacitly established between reader/ writer and listener / speaker. Gernsbacher and Givon (1995) illustrate this by pointing out that:

> *a coherently produced text - spoken or written-allows the «receiver» (reader or listener) to form roughly the same text-representation as the «sender» (writer or speaker) had in mind.* (Gernsbacher and Givon ,1995: vii)

«Words on the page» as stated by Gernsbacher and Givon have more to do with cohesion. A kind of relation must exist between them to convey coherence. As far as cohesion is concerned, Baker (1992) defines this phenomenon as:

> ...the network of lexical, grammatical and other relations which provide links between various parts of a text. These relations or ties organise and, to some extent create a text... (Baker, 1992: 180)

In reference to reading, it could be stated that cohesion is more related to the physical written language, that is the words that the reader can see on a surface, while coherence is more concerned with how the reader discerns such written language.
In clarifying these two issues Baker (1992) states that: _

> In the case of cohesion, stretches of language are connected to each other by virtue of lexical and grammatical dependencies. In the case of coherence, they are connected by virtue of conceptual or meaning dependencies as perceived by language users. (Baker, 1992: 218)

In answering question 1* *How does the presence of cohesion*

---

* Out of two others related to coherence and cohesion.

contribute to the coherence of a text? Hoey (1996) states that:

> ...cohesion is objective, capable in principle of automatic recognition, while coherence is subjective and judgements concerning it may vary from reader to reader if cohesion and coherence are distinguished in this manner, question 1 becomes a question about how the presence of a cohesive tie predisposes a reader to find a text coherent. (Hoey, 1996:12)

A coherent text is made up of elements that interact with each other to convey meaning across a text. Hasan (1984: 181) refers to coherence as «the property of 'unity' of 'hanging together'». This feature is evidenced in example 1 below. However, it is not present in example 2.
In example 1 there is a connection between *a little girl* and *she. She* refers to the same *little girl*. This is also the case with *a lovely little teddy bear* and *it* and *home* and *home.* In Hasan's terms example 1 *«...has certain kinds of meaning relations between its parts that are not to be found in the second. It is these meaning relations that are constitutive of texture».* (Hasan, 1985:71). Texture is termed by other authors like McCarthy as *textuality.* McCarthy, (1991:65) describes textuality as «that property of text which distinguishes it from a random sequence of unconnected sentences».

Example 1

Onces upon a time there was a (litle girl)

and (she) went out for a walk

and (she) saw [a lovely little teddy bear]

and so (she) took [it] *home*

and when (she) got *home* she washed [it]

Hasan (1985: 71)

Example 2

He got up on the buffalo

(I) have booked a [seat]

(I) have put [it] away in the cupboard

(I) have not eaten [it]

Hasan (1985: 72)

Meaning relations in Hasan's example 1 are mostly realised by grammatical choices when *a little girl* is replaced by pronominal *she*. Relations supplied by lexical choices are realised by the repetition of *home* . This illustrates how grammar and lexis work together to build a text.

At this point, it is worth stating that our interest will be focused on the lexical choices of two texts. Using Hasan's example served the twofold purpose of showing coherence in a text and the interdependence between grammar and lexis.
In what follows, I shall provide a brief description of different kinds of semantic relations between members of ties that will include both grammatical and lexical links. I shall focus special attention on the latter.

2.2 RELATIONSHIP BETWEEN MEMBERS OF TIES

Ties play an important part in the construction of texture. In example 1 above *a little girl* and *she* constitute a tie. *Home-home* constitute another tie. This involves two semantically related elements as a requisite to form a tie. The relationship between ties, as

described by Hasan (1985:73-74), fall into the categories of: *co-referentiality, Co-classification* and *Co-extension.* In *co-referentiality* relations the two members of the tie refer to the same thing or person. For instance in example 1 *it* refers to the same *lovely little bear* previously mentioned.

In *Co-classification* relations the two members of the tie are different. However, the process or circumstances they are involved in is the same. For example, when we say: *Ana lives in Peru. Pedro does too*

the experience of *living* is shared by two different members of the tie: *Ana* and *Pedro.* The third type of relation is *Co-extension* in which the two members of the tie «refer to something within the same general field of meaning» (Hasan, 1985: 74).

In *My sister likes apples and bananas* the two members of the tie (*apples - bananas)* belong to *fruit* as the same general field of meaning.

Relations that fall under «the same general field of meaning» should be put within boundaries; otherwise, we could include words that do not belong in a tie connection. In order to mark boundaries around the concept of «general field of meaning» in

relation to co-extension ties Hasan (1985:80) puts them under the following relations: SYNONYMY, ANTONYMY, HYPONYMY, MERONYMY AND REPETITION.

As regards SYNONYMY Hasan (1985) states that:

> ...the experiential meaning of the two lexical items is identical; this does not mean that there is total overlap of meanings, simply that so far as one kind of meaning goes, they 'mean the same'. (Hasan, 1985:80)

Examples like *shut* and *close; aid* and *help* fall into a synonymous category.

ANTONYMY is described as «the oppositeness of experiential meaning. The members of our experiential tie *silver* and *golden* are an example of this kind of meaning relation» (Hasan, 1985: 80).

As regards HYPONYMY, this involves the relation between a specific and a more general word. Hyponymy is described by Singleton (2000) as follows:

> the relation between more specific (hyponymous) terms (e.g. *spaniel*) and less specific (superordinate) terms (e.g. *dog*) is defined in terms of one-way rather than two-way entailment .Thus *I own a spaniel entails I own a dog, but I own a dog does not entail I own a spaniel.* (Singleton, 2000:70)

This means that if we talk about a *spaniel* we will always be talking about a dog. However, if we talk about a dog we will not be necessarily talking about a *spaniel* .We could be talking about a *German shepherd* or a *terrier.*

MERONYMY involves a part related to a whole. In describing MERONYMY Singleton(2000) explains that:

> this relation covers part-whole connections.X is a meronym of Y if it can form the subject of the sentence *An X is a part of a Y.* Y in such a case is labelled a *holonym* of X. For example, *finger* is a meronym of *hand* and *hand* is a holonym of *finger* on the basis of the way in which the two words feature in the sentence: *A finger is a part of a hand.*(Singleton, 2000:74)

Book and *page* present a meronymy relation. We could say that *page* is part of *book.*

REPETITION is viewed by Hoey (1991)in the following terms:

> ...it allows a speaker or writer to say something again in order that something new may be added. The simplest form of repetition is also the simplest kind of lexical relation, namely the link that may exist between two tokens of a type. (Hoey, 1991:52)

Repetition can be seen in the following extract from «Krishna's Birth», an Indian legend.

Old King Ugrasena of Mathura had two children, *Prince Kamsa* and PrincessDevaki. While King Ugrasena was a good king, *Prince Kamsa* was a ruthless tyrant. Now Princess Devaki was to wed a nobleman named VASUDEVA. *Kamsa* out of the love he bore for his sister decided to be the bride and groom's charioteer for the day. While *Kamsa* drove the chariot bearing Devaki and VASUDEVA out of the wedding hall, a voice from the heavens boomed informing *Kamsa* that Devaki's eighth child would be his slayer.

Relations of co-referentiality, co-classification and co-extension are cohesive devices that play an important part in connecting the two members of a tie contributing to texture (Hasan, 1985: 74) .It could also be added that they contribute to coherence of texts. It is worth mentioning that these relations are semantic and «such semantic relations form the basis for cohesion between the messages of a text» (Hasan, 1985: 73).

2.3 LEXICAL CHAINS

Lexical words are likely to be found in a relation of co-extension. In this respect, Hasan (1985: 80) states that «The two terms of a co-extensional tie are typically linguistic units that we refer to as content words' or lexical items'». These items are found in a relation of SYNONYMY, ANTONYMY, HYPONOMY, MERONYMY AND REPETITION. The text below shows these relations except for ANTONYMY.

THE most powerful earthquake to strike India for more than half a century rocked the subcontinent on Friday, killing more than 1,500 people as it toppled buildings and houses in India and Pakistan. The final toll is expected to rise even further as rescuers search for bodies buried under debris and aftershocks are expected to rock the region for days.

earthquake   strike   India

rocked   subcontinent

toppled

India ——   —— Pakistán

aftershocks   rock   region
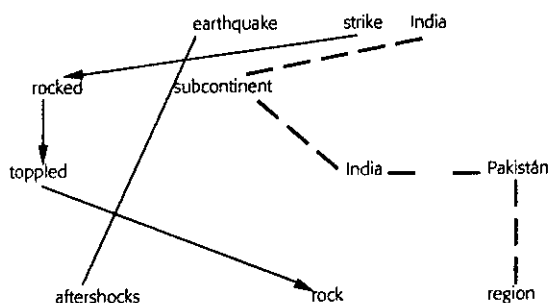
Taken from *The Daily Telegraph of January* 26 2001

Example 3

In the extract above *earthquake* and *aftershock* are co-hyponyms of a super-ordinate that we could call «violent movements of the earth». There is repetition with *rocked* and *rock* and these enter in a synonymous relation with *strike* and *toppled*. *India* and *Pakistan* are geografically co-meronyms of *the subcontinent*. Words in the above extract joined by the arrows, solid and dotted lines cohere lexically forming lexical chains through co-extension.

A lexical chain is made up of elements that are semantically related with each other usually through co-extensional connections.

The tables below show the chains formed in example 3:

Strike	India	Earthquake
Rocked	Subcontinent	Aftershocks
Toppled	India	
Rock	Pakistan	
	Region	

As shown in example 3 a member of a chain may appear in the text and reappear somewhere else maintaining a semantic link. McCarthy (1991) states that:

> Reiteration is not a chance event; writers and speakers make conscious choices whether to repeat, or find a synonym or a superordinate (McCarthy, 1991: 66)

Referring to Jordan (1985) Mc Carthy (1991:66) affirms that:

> ...research suggests a link between reiteration using synonyms and the idea of 're-entering' important topic words into the discourse at a later stage, that is to say bringing them back into focus, or foregrounding them again. (McCarthy, 1991:66)

2.3.1 *Types of Chains*

Regarding the sort of relations between members of chains, Hasan (1985) classifies them as identity and similarity and states that:

> The relation between the members of an identity chain is that of co-reference: every member of the chain refers to the same thing, event, or whatever... (Hasan, 1985: 84)

As regards similarity chains, Hasan (1985) describes its members as being

> ...related to each other either by co-classification or co-extension...with items [in the chain] that refer to non-identical members of the same class of things, events etc. or to members of non-identical ,but related classes of things, events etc. (Hasan, 1985: 84)

Identity and similarity chains serve the purpose of giving the text ordering. Georgakopoulou and Goutsos (1999) refer to this when they affirm that:

*identity and similarity chains
organise the whole of the text in
different ways: the former provide
a backbone of organisation while
the latter exploit the text's lexical
resources* (Georgakopoulou and
Goutsos, 1999:111)

It is worth adding that the
presence of cohesive devices in chains
does not always guarantee that the
text is coherent. In what follows,
Enkvist (1978b: 110-11) cited in
Baker (1992: 218-219) provides an
example of a cohesive text that shows
no coherence.

I bought a ford .The car in which
President Wilson rode down the
Champs Elysees was black. Black
English has been widely discussed.
The discussions between the
presidents ended last week. A
week has seven days. Every day I
feed my cat. Cats have four legs.
The cat is on the mat. Mat has
three letters.

Example

Despite the cohesive devices a
speaker of English would immediately
notice that this text lacks coherence.
What then exactly makes for
coherence and texture in a text?
This question is answered by
Baker (1992) by affirming that:

*...what actually gives texture to a
stretch of language is not the
presence of cohesive markers but
our ability to recognise underlying*
*semantic relations which establish
continuity of sense. The main
value of cohesive markers seems
to be that they can be used to
facilitate and possibly control the
interpretation of underlying
semantic relations.* (Baker, 1992:
219)

Lexical chains can be seen as
indicators of cohesion in a text.
However, this does not mean that
such a text is an indicator of
coherence. The visible chaining effect
may signal that the text is connected
in some way without this meaning that
the text is good: it is quite possible to
have a text that displays chains with all
kinds of semantic relations (synonymy,
hyponymy, meronymy) along with
anaphoric references and good
paragraph organisation and yet talk
about insane things. Such a text can
be regarded as cohesive, but not
coherent. How the lexis in a text is
connected is a feature that can be
clearly seen. However, how such
lexical connections create coherence is
quite a problematic question.
Coherence is an abstract and intangi-
ble phenomenon that depends on the
knowledge that the reader brings to
the text and also on the text's
contents. If the reader is ignorant of
certain genre's text construction
pattern and lexis s/he will find the text
totally incoherent. In this case the text
will only make sense for those
members of the community who
share the knowledge to understand
the contents of the text. The ignorant
reader attempting to understand will

not be able to establish a bridge with the text.

The relationship between coherence and cohesion is then complex and many factors should be taken into account. It should remain a huge problem for linguistics how we can work out coherence by following cohesive markers.

Determining the presence of 'underlying semantic relations' in the two texts I will analyse, is of utmost importance. More specifically, it will be crucial to determine whether or not the members in the lexical chains of the texts can be identified as having semantic relations that promote coherence. I shall now present the materials and methods that will enable me to develop the analyses.

3 The study: Materials and Methods

The research question for this study is: what are the lexical chains in two texts and how do they make for coherence? The two texts chosen to answer these questions were a children's story (Text 1) entitled «*Seagull and the coming of light*» from Nootka people of British Columbia and rewritten by Dr.Wilhelm. This story was downloaded from the Internet and it can be accessed at http://www.storyfest.com/tales.html. Text 2 was a news story taken from The Electronic Telegraph of October 10, 2000 entitled «*Corruption charge against billionaire brothers over Indian arms deal*».

The rationale for the choice of the two texts lay in the purpose to discover how two texts belonging to different genres constructed lexical chains. It is worth stating that the study of more texts would have been desirable, as this would produce more objective findings.

Once the texts were selected sentences in both texts were numbered in order to refer to the location of the members of the chain in the texts. The members that made up a chain were arranged in separate tables with the number of the sentence where they appear in the texts on the left-hand side.

Each table was alphabetically labelled. The analysis was developed by first establishing a criterion on what the lexical items needed to be included in a chain. To meet this criterion the items had to be semantically related by SYNONYMY, ANTONYMY, HYPONYMY, MERONYMY or REPETITION. The items were sorted and the chains started to be built. The words that met the criterion where highlighted in different colours and put in tables.

Finally, an overview of lexical words of both texts on pages 16 (Text 1, p. 48) and 19 (Text 2, p. 51) was presented. This overview was aimed to show the following aspects:

• Lexical words in isolation
• Their position and proximity with each other
• How they appear along both texts

The overview should also provide the reader with a quick look to deter-

mine which text is more lexically based.

4 Results

The organisational method previously used enabled me to present the lexical chains found in both texts. I shall first start by describing them in terms of the type of chain and the cohesive devices displayed by its members.

4.1. TEXT 1

In text 1 *box* becomes the first lexical word forming a chain. I shall label this chain A . This is an identity chain. Its members are related by co-referentiality through lexical repetition. A1 (box) is a similarity chain with its members related by repetition. A2 (box) is an identity chain with its members displaying meaning relation through repetition. In A2 there is a meronymy relation with *lid* as a co-meronymy of *box*. B (Seagull) is an identity chain made up of 23 members related by co-referentiality through repetition. C (water) is an identity chain. Here there is a co-referentiality relation between water. There is also an equivalence relation between *water* and *rain*. D (streams) is a similarity chain. Its members relate by co-extension through hyponymy with *streams, rivers* and *sea* as co-hyponyms of the super-ordinate «Bodies of Water». Although this super-ordinate is not explicitly expressed in the text, it helps us to establish the relation.

Chain E (people) is an identity chain whose members relate by co-referentiality through repetition. F1 (light) is a similarity chain. Its members display an antonymous relation.

F2 (light) is a similarity chain whose members are related by co-extension through hyponymy with *stars, moon* and *sun* as co-hyponyms of the super-ordinate «Heavenly Bodies». *Light* may also be seen as a co-meronym of *stars, moon* and *sun*. G (rose) is a similarity chain and its members are connected by co-extension through antonymy. H (raven) is an identity chain made up of 16 members. Connection is displayed here by co-referentiality through repetition.

I (contained) is a similarity chain with its member being tied by co-extension through synonymy and repetition . J (asking) is a similarity chain whose members are connected by near-synonymy.

Lexical chains in text 1: *Seagull and the coming of light*

A	B	C	D
3. box 4. box box	10 seagull 11 seagull 12 seagull 14 seagull 15 seagull (twice) 16 seagull 18 seagull 19 seagull 20 seagull 21 seagull 3 (times) 22 seagull 25 seagull 27 seagull 29 seagull 33 Seagull 34 seagull 37 seagull 41. seagull 42 seagull (twice)	3 water 4 water 5. water 5 rain	5 streams rivers sea

A1

6. box 8. box 9. box

A2

12. box 14. box 15. box 29. lid box 34. box 36. box 37. lid 42. box

Lexical chains in text 1: *Seagull and the coming of light*

E	F1	G	H
1. people 2 people (twice) 10 people 14 people 16 people 19 people	11 light 13 darkness	4 rose 5 fell	16 raven 17 raven 18 raven 19 raven 22 raven 24 raven (twice) 25 raven (twice) 26 raven 31 raven 33 raven 35 raven 39 raven 41 raven 44 raven

F2

28 light 29 light 30 light 31 stars 32 stars* 35. light 37. light 38 light* 39. moon 40 moon

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* Underlined words are replaced by pronominals.

An overview of Lexical wordsin

Text 1

Seagull and the Coming of Light

1. _____ People
2. _____ people _____ people
3. __**box**
4. _____ **box** _____ *water* _____ **box**
5. _____ *rain,* _____ *streams* *rivers* *flowed* ___ *sea.*
6. _____ **box**
7.
8. _____ **box**
9. _____ **box**
10. _____ People _____ **boxes** _____ **Seagull**.
11. ___ **Seagull**
12. __ **Seagull** _____ **box**
13 .
14. _____ people ___ **Seagull** ____ **box.**
15. Seagull _____ **box** _____ **Seagull**
16. _____ **People** RAVEN — ____ **Seagull**
17. RAVEN TRIED _____ *asking, begging, demanding, pleading, coaxing, flattering.*
18. _____ RAVEN _____ Seagull's
19. RAVEN _____ Seagull _____ People.
20. **Seagull**
21. _____ Seagull ___ Seagull _____ Seagull' s
22. _____ RAVEN _____ Seagull
23.
24. ___ RAVEN _____ RAVEN
25. ____ RAVEN ___ Seagull _____ RAVEN
26. RAVEN
27. " _____ Seagull,
28.
29. ___ **Seagull** ___ **lid** ___ **box**
30.
31. ___ **RAVEN**
32.

```
33. RAVEN_____Seagull
34. Seagull_____ box
35. RAVEN
36.            box
37._____Seagull_____lid
38.
39.    RAVEN
40.
41. RAVEN_____Seagull's
42. Seagull_____Seagull_____box.
43.
44._____RAVEN

45.
```

4.1. TEXT 2

Text 2 presents the *Hinduja brothers* making up chain A, the most prolific one. This is an identity chain with its members being related by co-referentiality through repetition. This chain is built on lexical and grammatical choices 18 and 20 respectively. Lexical choices are in *italics* in the table. B (charge) is a similarity chain with its members displaying connection by co-extension through near-synonymy and repetition .C (judge) is an identity chain with its members being tied by co-referentiality through repetition. D (try) is a similarity chain in which relation by its members is realised by co-extension through synonymy. E (the law) is a similarity chain with its members being related by co-extension through hyponymy with *the law* and *the judiciary* as co- hyponyms of a super-ordinate that we could call «Regulators of Justice» F (received) is also a similarity chain whose members are related by co-extension through repetition. G (30 million) is a similarity chain with its members being related by co-extension

through hyponymy with money as a super-ordinate of co-hyponyms *million* and *commission*. H (Bollywood Film Industry) is a similarity chain with its members relating by co-extension through hyponymy. Here «The film world» would be the super-ordinate of the members of this chain. I (Royalty) is a similarity chain whose members are related by co-extension through hyponymy with «Famous British People» as the super-ordinate of the members of this chain. There is also a co-referentiality relation with Mrs. Blair referring back to Cherie Blair. J (own) is a similarity chain with its members being tied by co-extension through synonymy and repetition. K (accounts) is a similarity chain. Its members are related by co-extension through hyponymy with «Financial Holdings» as the super-ordinate of the members of this chain. L (oil) is a similarity chain with its members being related by co-extension through hyponymy. «Source of Fortune» would be the super-ordinate of the members of this chain.

Lexical chains in text 2: *Corruption charges agains billionaire brothers over Indian arms deal*

A

1.	*The Hinduja brothers*
	philanthropists
2.	*Srichand and Gopichand Hinduja,*
3.	*Gandhi's associates*
4.	*brothers*
5	*The Hindujas*
6.	*philanthropists*
	<u>*The Hindujas*</u>*
9	*the Hindujas*
10.	<u>*the Hindujas*</u> *(twice)*
11.	<u>*The Hindujas*</u>
12	*brothers*
	<u>*The brothers*</u>
13	<u>*The brothers*</u>
14	*Gandhi associates*
15	*brothers*
16	<u>*The brothers*</u> *(twice)*
17.	*The Hindujas brothers*
	the Hindujas
18	*brothers*
19	*The Hinduja brothers*
20	<u>*The Hinduja brothers*</u> *(twice)*
21	*The Hindujas*
	<u>*The Hindujas*</u>
22	*brothers*
23	<u>*the brothers*</u> *(twice)*
24	<u>*the brothers*</u> *(twice)*
26	<u>*The brothers*</u>
30	*The three Hinduja brothers*
	<u>*The three Hinduja brothers*</u>
31	<u>*The three Hinduja brothers*</u>
	<u>*The three Hinduja brothers*</u>
31.	*Law-abiding persons*

B

1	charged
4	accused
11	charged

C

19	judge
20	judge

D

19	try
20	arraign

E

29	the law
30	the judiciary

F

3	received
15	received
21	received

G

3	£ 30 million
14	£ 30 million
15	commission
	£ 5.53 million
21	money

H

9 .	Bollywood film industry
	Hollywood
	Cannes Film Festival
10	film makers

I

6.	Royalty
	Politicians
7	Peter Mandelson
8 .	Tony
	Cherie Blair
	Mrs Blair

J

10	own
16	have
21	own

K

16	accounts
21	one bank
	Financial
	institutions

L

4	oil
	banking
	communications

* Underlined words are replaced by pronominals.

An overview of lexical words in text 2
Corruption charge against billionaire
Brothers over Indian arms deal

1. Hinduja brothers, _____ philanthropists

2 Srichand and Gopichand Hinduja,

3 _____ Gandhi's associates
4. brothers, _____ *oil, banking*   *communications,*

5 The Hindujas

6 _____ philanthropists, The Hindujas _____ ROYALTY   POLITICIANS

7 _____ PETER MANDELSON
8 TONY   CHERIE BLAIR _____ · MRS BLAIR

9   members   Bollywood film industry, _____ Hollywood, the Hindujas
———————— Cannes Film Festival.
10 the Hindujas _____ The
Hindujas   celebrities   film makers.
11 the Hindujas

12   brothers _____ The Hindujas

13 _____ the Hindujas

14 _____ Gandhi associates
15
———————————————————— brothers

16 ____ the Hindujas _____ the Hindujas

17 _____ the Hinduja brothers

18 ____ brothers
19 _____ *judge,* _____
_____ (try) the Hinduja brothers,
20   *judge*   (arraign) the Hindujas, _____ the Hindujas

21 The Hindujas,

The Hindujas

22   the brothers
23   the Hindujas   The Hindujas
                                   philanthropists,

24 the Hindujas _____ _The Hindujas

25

26 the Hindujas
27
28

29 | the law |
30 The three Hinduja brothers   the Hindujas
_____ | the judiciary |

31 the Hindujas   law-abiding persons   the Hindujas

32

5. Discussion

5.1. TEXT 1

I shall now proceed to discuss how the above-described chains show coherence. Numbers in parentheses indicate the position of the sentences in the texts.

Box is a key lexical choice in the text. We find it establishing the first semantic relation forming chain A joining sentences (3) and (4). *box* in (4) refers to the same *box* in (3). In chain A1 repetition joins (6), (8) and (9) and allows the author to reveal the contents of the boxes. Chain A2 contains most *boxes*. Semantic relations in this chain start in (12) and end in (42) referring to the same *box*. Chain B (*seagull)* displays a semantic relation between its members by means of repetition. *Seagull* in (10) refers to the same *Seagull* to the end of the story establishing a cohesive 'continuity' line between these sentences. Chain (B) is the most prolific one with *Seagull* appearing 23 times. The first mention of *Seagull* can be seen in (10) with *each of the first people* as its antecedent. This accounts for the first lexical cohesion in which the writer presents *the Seagull* as a member of *the first people.* From (10) to (42) *Seagull* is located in sentences 11,12, 14 to16; 18 to 22; 25, 27, 29, 33,34, 37, 41,42. *Seagull* appears in a good number of clusters of adjacency sentences with very few breaks. In chain C the three members *water, water, rain* in adjacency sentences establish a strong meaning. Chain D, adjacent with C, continues building the text by drawing on hyponymy to finish a continuity line that started with *water* in (3) and ended with *sea* in (5). Chain E establishes a meaning relation through repetition. In the text the writer

establishes that the *first people* are the same as the *animal people.* This is realised by the two lexical choices in (2) - *first people* and *animal people*.

From this point on these choices are used separately *first people* in (10) and *animal people* in (14) and the sameness between the two is clear for the reader.

Chain F1 establishes a tie between (11) and (13) through antonymy to describe the initial existence of light and later on its absence due to seagull's refusal to open its box. *Stars, moon* and *sun* in chain F2 play an important part in the construction and cohesion of almost half of the text connecting (28) to (45). Although the super-ordinate «Heavenly Bodies» does not appear in the text, a hyponymy relation could be established. *Light* also plays an important part in the construction of *the stars, the moon* and *the sun* .It would be possible to establish a meronymy relation here speculating that *light* could be seen as a co-meronym of *the stars, the moon* and *the sun.* We could say that the three of them have *light. It is the moon ,but it has little light.* In any case what appears to be clear is the strong cohesive 'continuity' line existing between *light-stars; light-moon; light-sun* in the text. Chain G is related to C and supplies a meaning relation by means of opposition to describe the process rain goes through. This joins (4) and (5). H (raven) is a prolific chain with *raven* appearing 16 times semantically tied by repetition. Members of this chain can be unambiguously identified joining a good number of sentences closely located in the text. In chain I (contain) synonymy and repetition establish the semantic relation that connect the three members of this chain in the text joining (6), (8) and (9). In chain J (asking) we find a strong cohesive lexical chain with a

relation established by near-synonymy that consolidates the meaning intention that the writer wants to give in this sole sentence.

Two salient characteristics can be seen in the chains of text 1. First of all, the special use of repetition as a predominant lexical choice. Another one is the proximity of the members of the chains. This can be seen by looking at the few breaks of main lexical choices. A major break can be seen in chain A2 when *box* is broken in (16) and foregrounded in (29).

The break signals a shift in the story and at this point we have other chains getting involved, namely *raven* and *seagull* . From (16) on these two chains appear significantly contributing to the development of the story. Another break can be seen in chain E when *people* is broken in (3) and foregrounded in (10) At this break point chain A gets involved to continue the story.

5.2. TEXT 2

Text 2 presents chain A (The Hindujas brothers) upon which most of the story revolves. Lexical repetition of the *The Hindujas brothers* establishes the semantic relation for the cohesion of this chain. This creates a 'continuity line' that makes it clear for the reader to determine antecedents of *The Hindujas brothers* throughout the text. Repetition should also contribute to *The Hindujas brothers* being unambiguously identified. *The Hindujas brothers* appear in all the sentences of the text except for (7),(8),(25),(29) and (32) where there are no explicit mentions of them.

The rest of the chains form lexical environments that extend the information related to the central chain —*The Hindujas*

brothers– and contribute to the unfolding of the story.

One of these lexical environments is related to *Justice* and involves chains: B, C, D and E. Another one involves chains F and G and is related to *Illegal money received by The Hindujas*. A third one involves chains H and I and is concerned with *The Hindujas' social life*. A fourth one is included in chains J ,K,L and is related to *The Hindujas' possessions*.

Repetition, synonymy and hyponymy provide semantic relations in the field of *justice* (Chains B,C,DE) This is the case of chain B *Charged* (11), *accused* (4) and *charged* (1) which establish a lexical cohesive line between these three sentences. Sentences (19) and (20) display strong lexical cohesion involving members of chains C and D.

Hyponymy and repetition establish the semantic ties for the field of *Illegal money received by The Hindujas* (Chains F-G). Under the umbrella of money several related lexical items play a cohesive part in the construction and relation of (3), (14) and (15).

For the field of *The Hindujas' social life* (Chains H-I) hyponymy provides semantic relations with a high degree of proximity between the lexical choices in these two chains. This can be evidenced in (6) to (10) where lexical words related to *The Hindujas' social life* predominate. Hyponymy and synonymy serve as the relations for the field of *The Hindujas' possessions* (J,K,L) with *own* (10), *have* (16) and *own* (21) establishing a cohesive link with chain K.

Text 2 forms a backbone chain with *The Hindujas brothers* as the main characters of the news story. This chain builds cohesion both lexically and grammatically by using repetition and pronominals respectively with a slight preponderance of grammatical choices. The rest of the chains add further information in other fields where the brothers are involved. These chains build cohesion through devices like: synonymy, repetition and hyponymy.

If we compare the two texts it can be concluded that Text 1 is markedly more lexically constructed than Text 2. In fact, grammar choices in text 1 have a low representation with only seven pronominals replacing lexical choices. This is not the case with text 2 where reliance on grammar is more evidenced especially when it comes to building the main chain, the one made up by *The Hindujas brothers*.

If we first consider those chains whose members contribute to the development of topic in both texts it is worth noticing that semantic relations by the members of these chains in text 1 are realised by lexical repetition. This is evidenced in chain A (boxes), B (seagull), E (people) and H (raven). These chains go along good portions of text 1.

In relation to the previously mentioned chains Hasan (1985) states that

> *this particular identity chain is text-exhaustive, i.e. it runs from the beginning to the end of the text. This, I would suggest tentatively, is a characteristic of short narratives: texts of this category normally contain at least one text-exhaustive identity chain.* (Hasan, 1985: 84)

It could be speculated that the choice of lexical repetition would facilitate reading for children who should unambiguously recognise the word previously referred to.

As regards text 2 chain A, *The Hindujas brothers*, draws on lexical

repetition and pronominals to establish semantic relations with pronominals having a more marked representation. It could be suggested that text 2, a more mature text aimed at an adult readership, relies much more on grammatical references that such readers would be able to work out with ease.

It is worth stating that even though the previous analysis and discussion showed lexical chains with their members semantically related, this does not make the texts totally coherent.

There are cases of deviation with sentences that appear to be «out of place». This is seen in sentence 2 in text 1 when information about *the first people* appears somewhat abruptly in the middle of a stretch of sentences telling about *the boxes*. In text 2 sentences 5, 23, 26 appear a bit disconnected from the main topic. These sentences are included in chains, yet appear rather odd in the text. Sentence 27 is strange, as it appears completely detached at a point where the reader would not expect such a piece of information.

As far as genre is concerned in relation to chain building text 1 heavily draws on lexical choices to build the chain for its main characters, whereas text 2 relies on lexicogrammatical items to build *The Hindujas*, the main and most prolific chain. Chains in text 1 revolve around more than one character (*seagull, raven, and box*) while in text 2 *The Hindujas* appear as the predominant characters.More texts would have to be analysed to establish more solid conclusions. It is important to take into account factors such as: writer and type of newspaper.

These can play an important part in explaining a variety of features in texts.

6. Conclusion

This study aimed to find lexical chains in two texts and see how they made for coherence. The analysis and discussion above presented made it possible to establish that both texts contained lexical chains with their members being semantically related.

In answering the question how these chains in both texts make for coherence, it could be stated that coherence is evidenced as the members of the chains maintain semantic relations.

However, such coherence is a bit undermined when some chain-linked sentences appear isolated from the main topic. This is especially the case with text 2.

It was also found that whereas text 1- the children's story- heavily drew on lexical repetition   to construct its chains, text 2 -the news story- relied much more on grammatical references.

It is my belief that both texts have a leaning towards coherence that should enable a reader who knows the English language to establish a bridge with them.

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APPENDIX

Text 1

Seagull & the Coming of Light   http://storypalace.ourfamily.com/child018.html
1 When the Great Spirit made all things, the first People were given gifts in carved cedar boxes. 2 The first people were the animal people who were here before us. 3 In one box there was water. 4 And when that box was opened, all the water came out of the box and rose to the sky in the shape of clouds. 5.It then fell from the sky as rain, and formed the streams and rivers that flowed out to the sea. 6. Another box contained all the mountains. 7 They were taken out, and placed where they still stand to this day. 8.Yet another box contained all the seeds of things that grow. 9 And another box held the wind, which blew out, and blew the seeds to the four corners of the world. 10. Each of the First People opened their boxes, that is, all except Seagull.11 And in Seagull's box was all the light of the world. 12 But Seagull clutched the box tightly. 13 And so it was: In the beginning there was only darkness. 14 The animal people all asked Seagull to open the box. 15 Seagull refused, squeezing the wooden box tightly under one of Seagull's wings.

16 And so the First People asked Raven — who was Seagull's cousin — to try. 17 Raven tried everything: asking, begging, demanding, pleading, coaxing, flattering. 18 But nothing worked, and Raven grew ever so angry at Seagull's refusal. 19 Raven thought this thought: «Seagull is making it hard for all The People. 20 Seagull is causing so much trouble. 21 It would serve Seagull right if Seagull had a thorn stuck in Seagull's foot». 22 And since whatever Raven

thinks, happens, Seagull suddenly cried out with pain. 23 «My foot, my foot, something is stuck in my foot». 24 And Raven offered to help, as if Raven didn't know what had happened. 25 But when Raven reached for Seagull's foot, and found the thorn there, Raven did not pull it out.26 Raven pushed it in. 27 «Oh, I am sorry, Seagull, but I can't see what I am doing.28 If I only had a little bit of light». 29 And so, Seagull lifted the lid of the box just a crack, to let out as little of the light as possible. 30 And all the specks of light lifted into the heavens.31 And Raven was the first to see the Stars. 32 And they were very beautiful. 33 Raven now reached for Seagull's foot again, and once again pushed the thorn deeper.34 Seagull cried out, flapping one wing but holding the box tightly with the other. 35 Raven said, «I'm sorry, but there is not enough light. 36 Open the box some more!» 37 And so Seagull lifted the lid a bit more, just enough to let out a round, pale light. 38 It floated up to the sky. 39 And Raven was the first to see the Moon. 40 And it was very beautiful. 41 Raven reached down for Seagull's foot one more time, and pushed the thorn deep.

42 Seagull cried out! Both wings went up, and Seagull dropped the box. 43 The lid flew off, and out shot a great ball of fire.44 It shot up, up. high into the sky, and even Raven could not look at that light so bright, that great light which is the Sun. 45 And so it was that the first day came. And in the beginning, there was indeed Light.

From: Nootka
People of British Columbia
Rewritten by: Dr. Wilhelm
http://www.storyfest.com/tales.html

Text 2

Corruption charge against billionaire brothers over Indian arms deal
By Sandra Laville in London and Rahul Bedi in New Delhi

(1) THE Hinduja brothers, the billionaire philanthropists who saved the Millennium Dome's faith zone, were charged in India with corruption yesterday over an arms deal 14 years ago. (2) Srichand and Gopichand Hinduja, who live in London and became British citizens last year, deny involvement in the long-running Bofors arms scandal, which contributed to the downfall of the then Indian prime minister Rajiv Gandhi. (3) It was alleged that Gandhi's associates received a £30 million sweetener to buy guns from the Swedish firm.

(4) The brothers, who made their £2 billion fortune in oil, banking and communications, are accused of bribing senior politicians and civil servants to facilitate the £802 million sale of the howitzers to the Indian army. (5) The Hindujas have lived in Britain for many years and are jointly ranked as the eighth richest people in the country. (6) Well-known philanthropists, they count royalty and politicians among their friends.

(7) Srichand, 65, known as SP, gave Peter Mandelson £1 million to bail out the faith zone.

(8)Tony and Cherie Blair were guests at the family's Diwali party last November,when Mrs Blair modelled a churidar kameez originally designed by one of SP's daughters. (9) As members of the Bollywood film industry, India's equivalent to Hollywood,the Hindujas are regulars at the Cannes Film Festival. (10) They own a villa in the French resort and moor a yacht off the town, where they host parties for celebrities and film makers.

(11) They were charged in their absence - along with their brother Prakashchand, who lives in Geneva – with corruption, criminal conspiracy and cheating, at a special court in New Delhi. (12) The brothers issued a statement saying they were «extremely surprised» by the development.

(13) The case has dogged them for years and dates back to 1986, when Rajiv Gandhi's Congress government bought 400 howitzer field-guns from Bofors. (14) The Swedish press claimed £30 million had gone to Gandhi associates to sweeten the deal.

(15) Counsel for the Indian Central Bureau of Investigation, the CBI, which has been inquiring into the scandal since 1987, alleged that the brothers received commission from Bofors worth 81 million Swedish kronor, or £5.53 million. (16) He said: «They have three or four Swiss accounts in which they put this money».

(17) Commissions in defence deals are outlawed in India, and if convicted the Hinduja brothers could be sentenced to seven years in prison. (18) But the brothers would have to be extradited before facing the charges. (19) Ajig Bharihoke, the special judge, will begin hearing arguments next month about whether there is enough evidence to try the Hinduja brothers, listed 468th on the Forbes billionaires' list. (20) If the judge decides to arraign them, the CBI will seek their extradition from the UK. (21) The Hindujas, who own at least one bank in Switzerland and several other financial institutions, issued a statement last month claiming the money they received from Bofors had «no relation» to the Indian deal.

(22) Official sources said the brothers

had offered to «talk» to Indian officials in London or Geneva. (23) An official in New Delhi said: «They are highly conscious of their public standing in India and the UK as philanthropists, having built several hospitals and donated generously to other charitable causes. (24) They are willing to go to extreme lengths to keep their family name from being besmirched». (25) The family, who first set up business in Iran in the Twenties, is India's largest transnational company, with interests in information technology, finance, chemicals, and the film industry. (26) They employ 20,000 people. (27) Srichand recently expressed his determination to make a Hollywood epic.

(28) The spokesman for the Hinduja Group in London said: «There has been enough trial by press in this matter. (29) It is time for the law to take its course. (30) The three Hinduja brothers are relieved that they are no longer at the mercy of the political pressures that have ruled this case for the past 13 years and that the judiciary will now make the correct decision. (31) They are law-abiding persons and as in the past they shall abide by the legal process». (32) Gandhi, who was voted out in 1989 and assassinated in 1991, also figures in the CBI charge sheet.