Changes in thematic choice with developing EFL proficiency

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After the revolution, good hamburgers were ...

Aims

- We are a group of University English teachers in Spain

- Studying learner writing to understand how learners learn

- And thus how to improve the learning environment for our learners

Our Learner Corpus

- We make use of two corpora of short essays written by learners of English in Spanish Universities

    - The **WriCLE** corpus (UAM):
      500,000 words by students in English degree.
      (Rollinson and Mendikoetxea 2008)

    - The **UPV Learner Corpus** (UPV):
      150,000 words of shorter texts by ESP students
      (Andreu Andrés et al. 2010)

- All texts associated with proficiency level using Oxford Quick Placement Test

Analysis

- We study the learner writing through two methods of analysis:

  - (Automatic) **Syntactic Analysis** (Mood, Theme, Transitivity) via UAM CorpusTool
    ☞ To see what learners do/don't do.

  - (Manual) **Error Analysis**: via 8 human coders
    ☞ To see what learners are struggling with

Our Prior Studies

Errors
(MacDonald-Murcia, etc.)

Modality
(Garcia 2011)

Transitivity
(O'Donnell 2012)

Lexical Errors
(Mediero, 2013)

Tense-Aspect
(O'Donnell 2013)

Article Use
(Dotti 2014)

Theme
(O'Donnell 2014)

Our Prior Studies

Errors (MacDonald-Murcia, etc.)

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Tense-Aspect (O'Donnell 2013)

Article Use (Dotti 2014)

Theme (O'Donnell 2014)

This talk addresses this study

2. Linguistic Model of Theme

After the revolution, life was not the same

Linguistic Model

❖ I assume Halliday's model, as presented in "Introduction to Functional Grammar", 4th Edition (Halliday and Matthiessen).

❖ In declaratives, Theme includes all clausal elements up to and including the first experiential element (most typically the Subject).

❖ So, Textual and Interpersonal elements may precede:

Unfortunately	*however*	*the revolution*	*failed*
Theme			Rheme
Interpers.	Textual	Topical	

Linguistic Model
Topical choices

In declaratives:

❖ unmarked Topical theme is SUBJECT:
-> **John** *likes coffee in the morning.*

❖ fronted Adjunct:
-> **In the morning** *John likes coffee.*

❖ fronted Complement:
-> **Coffee**, *John likes.*

❖ fronted Dependent Clause:
-> **Because I drank too much coffee,** *I cannot sleep.*

Linguistic Model
Topical choices

In declaratives:

- ❖ unmarked Topical theme is SUBJECT:
  -> ***John*** *likes coffee in the morning.*

- ❖ fronted Adjunct:
  -> ***In the morning*** *John likes coffee.*

- ❖ fronted Complement:
  -> ***Coffee****, John likes.*

- ❖ fronted Dependent Clause:
  -> ***Because I drank too much coffee,*** *I cannot sleep.*

Treated as Adjunct in this study

Linguistic Model
Topical choices

Coordinated clauses with Elliptical Subject:

-> *I drink coffee <u>but usually hate the taste.</u>*

❖ Taken to have no Topical Theme (the Topical theme of the first clause carries over to the coordinated clause.

Linguistic Model
Topical choices

Not handled:
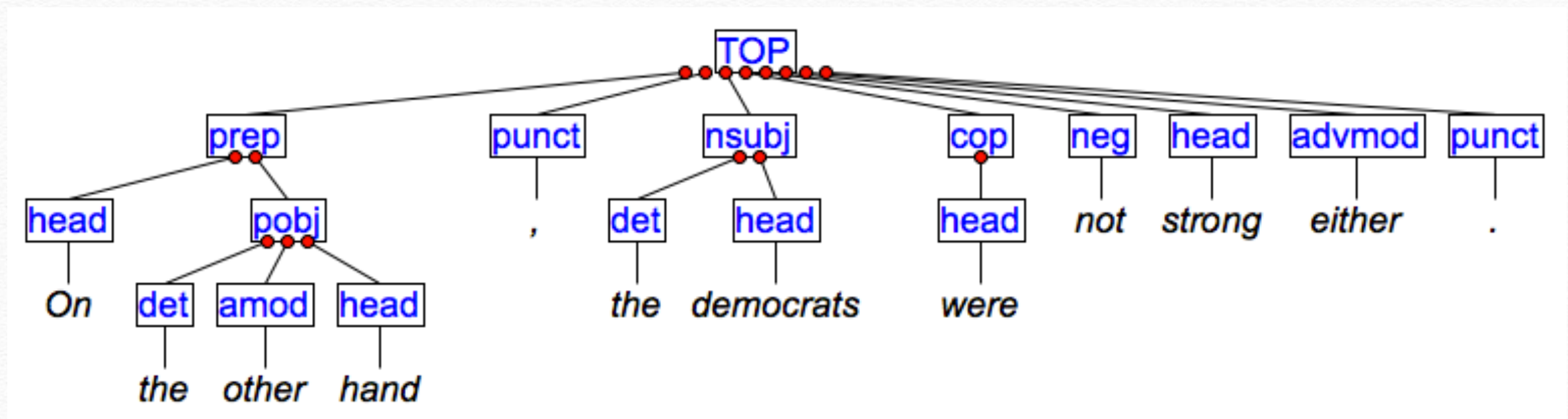
❖ Predicated themes (it-cleft):
   -> *It is **John** that likes coffee.*

❖ *Thematic Equatives (wh-clefts):*
   -> ***What john likes** if coffee.*
   -> ***Coffee** is what John likes.*

❖ Thematicised comment:
   -> ***It is true** that John is good.*

3. Automating Theme Analysis

Automating Theme Analysis

❖ UAMCT calls Stanford Parser to produce a basic syntactic analysis:

Automating Theme Analysis

❖ UAMCT translates Stanford analysis into something closer to SFL Mood Analysis:

On the other hand	,	the democrats	were	not	strong	either	.
Adjunct	Punct	Subj	Pred	Neg	Complement	Adjunct	Punct
Head / Complement		Det / Thing					
Det / PreMod / Thing							

Automating Theme Analysis

❖ UAMCT translates Mood analysis into Theme-Rheme analysis:

On the other hand , the democrats were not strong either.

Theme		Rheme
Textual	Topical	

Automating Theme Analysis:
Procedure

❖ For each constituent at the front of the clause:

  ❖ If Subject, code as **Topical**

  ❖ If Adjunct,

    ❖ If on list of Textual markers, or grammatically a conjunction, code as **Textual**

    ❖ if on list of Mood markers, or grammatically modal, code as **Interpersonal**

Automating Theme Analysis

Currently:

❖ 144 Textual markers

❖ 126 Interpersonal markers

❖ User can add their own to the list.

textual	addition	and	additionally	also	moreover	in addition	besides	as well
textual	consequence	as a consequence	as a result of	because of that	because of	due to this	due to this	for that
textual	summative	in short	briefly	to sum up	in summary	to summarize	to summarise	
textual	appositive	for example	as an	that is	in other	for instance	as i said before	
textual	corrective	rather	or rather	to be precise	at least	strictly		
textual	adversative	but	however	on the other	conversely	by the other	in the other	on the
textual	contextualisi	as to that	in this	here	in that way	in this way	in this sense	in this
textual	sequencing	firstly	secondly	thirdly	fourthly	fifthly	sixthly	forthly
textual	comparing	in the one hand	on one hand	on the one hand	in one hand	for one hand	in the one hand	
textual	concluding	finaly	in conclusion	as a conclusion	to conclude	finally	lastly	last but not
textual	concessive	yet	despite this	despite that	nevertheless	in spite of	in spite of	nonetheless
textual	dismissive	in any case	anyway	leaving that	apart from this			
textual	actuality	actually	in fact	indeed				
textual	likewise	likewise	in the same way	in the same vein				
textual	alternatively	instead	alternatively	or	otherwise			

Sentence: *On the other hand , the Democrats were not strong either .*

Analysis 1:

On the other hand	,	the Democrats	were	not	strong	either	.
Adjunct	Punct	Subj	Pred	Neg	Complement	Adjunct	Punct
Head / Complement		Det / Thing					
Det PreMod Thing							

Analysis 2:

On the other hand	,	the Democrats	were	not	strong	either	.
Textual	Punct	**Topical**	Pred	Neg	Complement	Adjunct	Punct
Head / Complement		Det / Thing					
Det PreMod Thing							

Analysis 3:

On the other hand , the Democrats			were not strong either .				
Theme			Rheme				
Textual	Punct	Topical	Pred	Neg	Complement	Adjunct	Punct
Head / Complement		Det / Thing					
Det PreMod Thing							

Analysis 4:

On the other hand , the Democrats were not strong either.

Theme		Rheme
Textual	Topical	

Automating Theme Analysis

❖ Mapping Mood to Theme:

- Left with T-unit, Textual, Topical and Interpersonal segments.

- Their features are changed to reflect their thematic nature (mood features dropped)

- All other Mood structure constituents dropped

- New Theme-group constituent created to group Textual, Interpersonal, Topical.

- Rest of clause tagged as Rheme.

In Madrid about 200 people died in a terrorist attack caused by the participation of Spain in the war of Irak.

Theme	Rheme
Topical	

London was also affected by this kind of actions,   but   fortunately   no deaths had to be regreted .

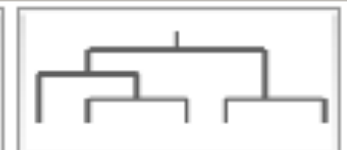| Element		Element		
Theme	Rheme	Theme		Rheme
Topical		Textual	Interpersonal	Topical

This   is the most extended position amongst the world population,maybe because of these lamentable incidents.

Theme	Rheme
Topical	

<< < > >> Ignore Delete Other Action... Save Close Help

Selected

element
theme
theme-group
has-textual-theme
has-interpersonal-theme
unmarked-ideat-theme

Role

Role: Theme

Comment:

Automating Theme Analysis

Handling Learner variation

- ❖ Stanford parser actually quite tolerant of learner errors in most cases

The inmigrathion is for some a problem		but		it		is for others a help .	
Element				Element			
Theme	Rheme			Theme		Rheme	
Topical				Textual	Topical		

- ❖ Textual/Interpersonal marker dictionary enriched with learner variants:

on the other hand	on other hand	in the second hand
by the other hand	by other hand	for another hand
in the other hand	one the other hand	by other hand
on the other side	to the other hand	in a other hand
in other hand	in another hand	

4. Results

Results (i): Number of T-units

A1	A2	B1	B2	C1	C2
905	5018	12492	9376	5119	923

Results: Types of Topical Themes
(as percent of T-units)
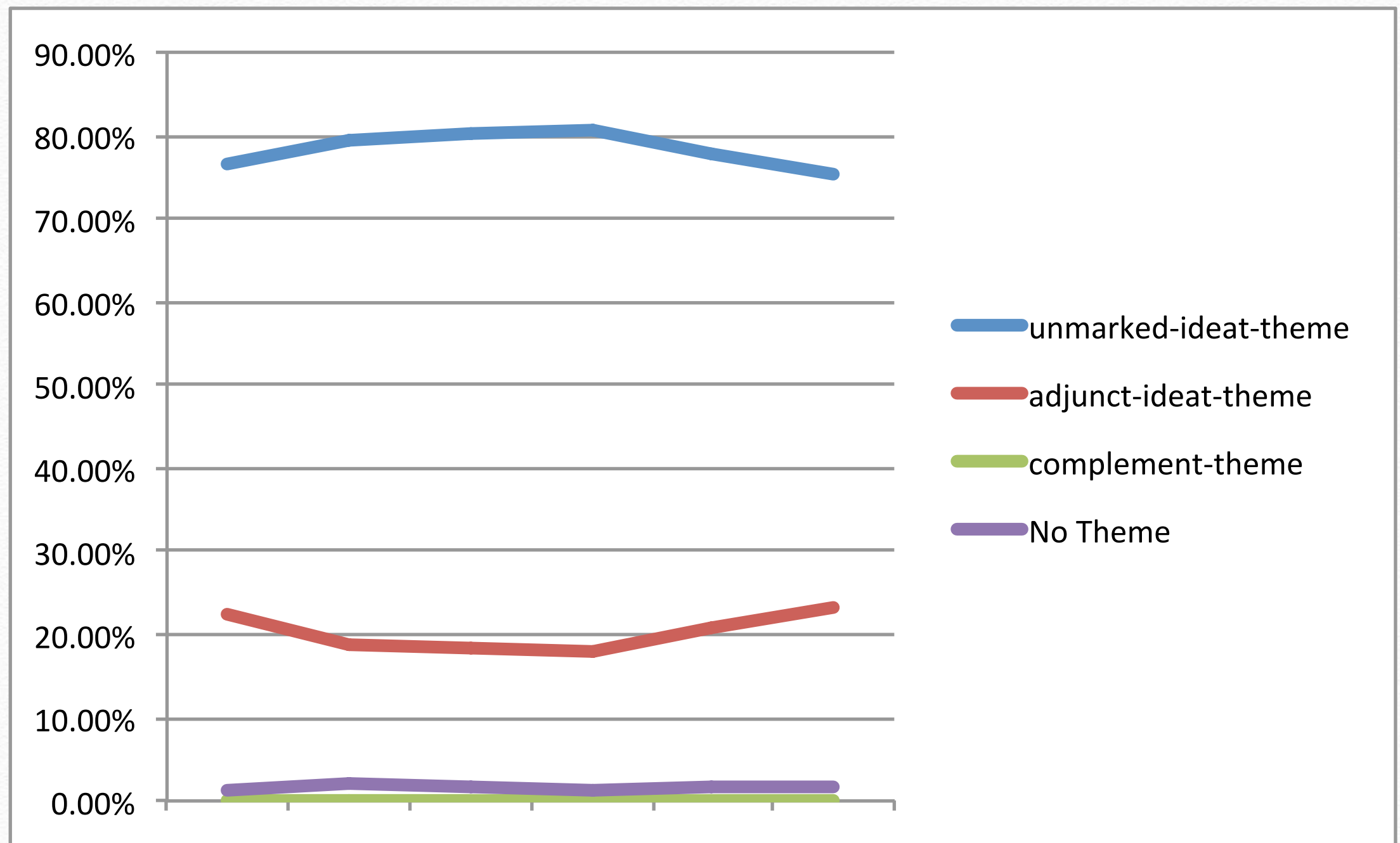
Results: Most Frequent Topical Themes
(as percent of T-units)

Results: Use of Textual Themes

(as percent of T-units)

Results: Use of Textual Themes

(as percent of T-units)

Textual Theme

A1	A2	B1	B2	C1	C2
905	5018	12492	9376	5119	923

Results: Common Textual markers
(as percent of Textual elements)

Textual markers by semantics


```
                                                    ┌addition
                                                    │ ┌────────────────┐
                                                    │ │and, addionally │
                                                    │ └────────────────┘
                                                    ├summative
                                                    │ ┌──────────┐
                                                    │ │in summary│
                                                    │ └──────────┘
                                                    ├appositive
                                    EXTENDING-       │ ┌───────────────────────────┐
                          extending ─────────────────┤ │for example, in other words│
                                    TYPE             │ └───────────────────────────┘
                                                    ├contextualising
                                                    │ ┌──────────────────────────────┐
                                                    │ │in-this-respect,-in-this-context│
                                                    │ └──────────────────────────────┘
                                                    ├actuality
                                                    │ ┌───────────────┐
                                                    │ │actually, in fact│
                                                    │ └───────────────┘
                                                    └likewise
                                                      ┌──────────────────────┐
                                                      │likewise, in the same way│
                                                      └──────────────────────┘
                                                    ┌consequence
                                                    │ ┌────────────────┐
                                                    │ │thus, as a result│
                                                    │ └────────────────┘
                                                    ├corrective
                                                    │ ┌─────────────────┐
                                                    │ │rather, to be precise│
                                                    │ └─────────────────┘
                                    ARGUING-         ├adversative
                          arguing ──────────────────┤ ┌────────────┐
                                    TYPE             │ │but, however│
                                                    │ └────────────┘
            TEXTUAL-                                 ├concessive
textual-theme ─────────────┤                        │ ┌───────────┐
            THEME-TYPE                               │ │despite this│
                                                    │ └───────────┘
                                                    └alternatively
                                                      ┌──────────────────────────┐
                                                      │or, alternatively, instead│
                                                      └──────────────────────────┘
                                                    ┌sequencing
                                                    │ ┌───────────────────────┐
                                                    │ │firstly, in the first place│
                                                    │ └───────────────────────┘
                                    STRUCTURING1-    ├comparing
                          structuring ──────────────┤ ┌────────────────┐
                                    TYPE             │ │on the one hand│
                                                    │ └────────────────┘
                                                    ├concluding
                                                      ┌───────────────────────────────┐
                                                      │in conclusion, to sum up, finally│
                                                      └───────────────────────────────┘
```
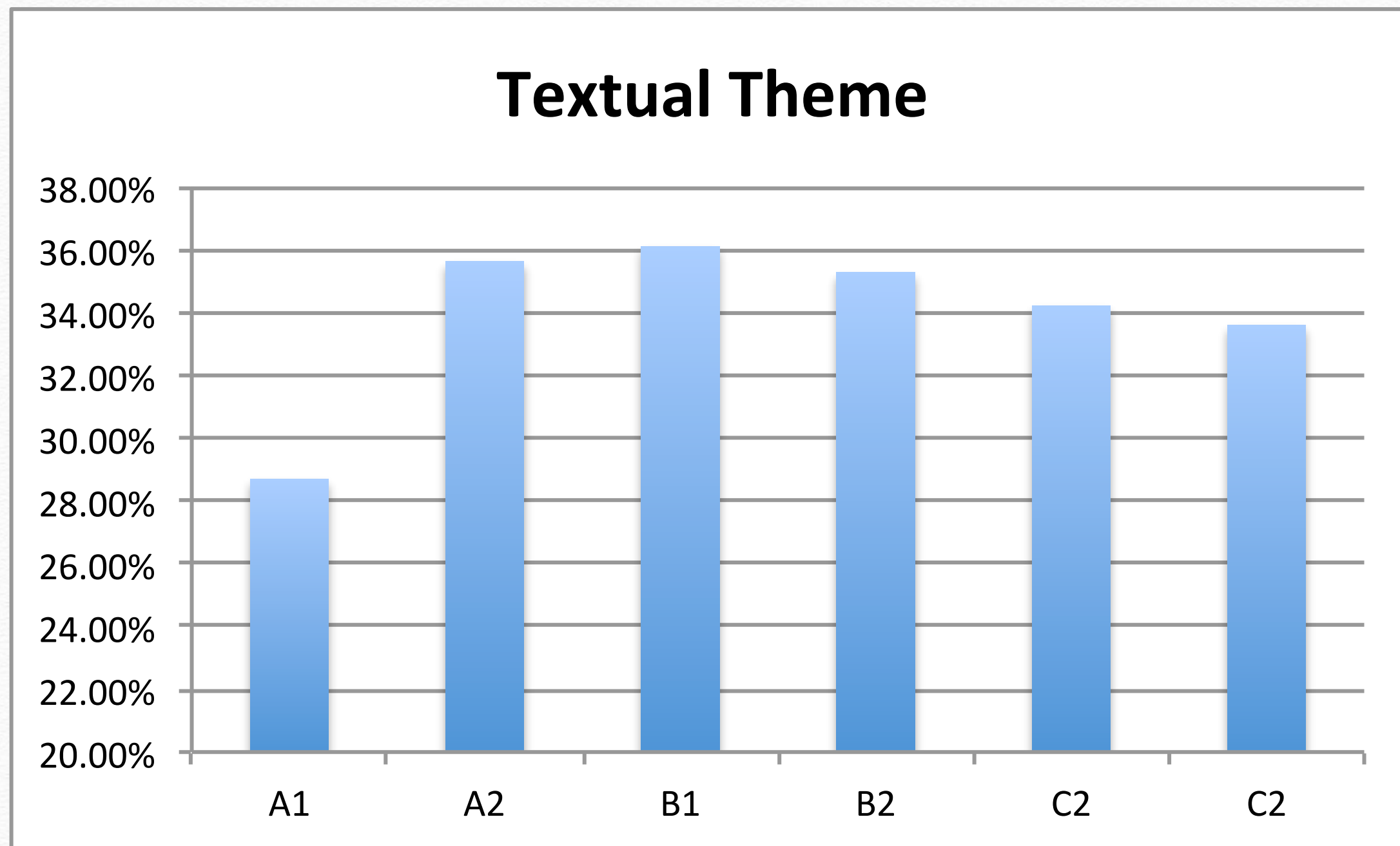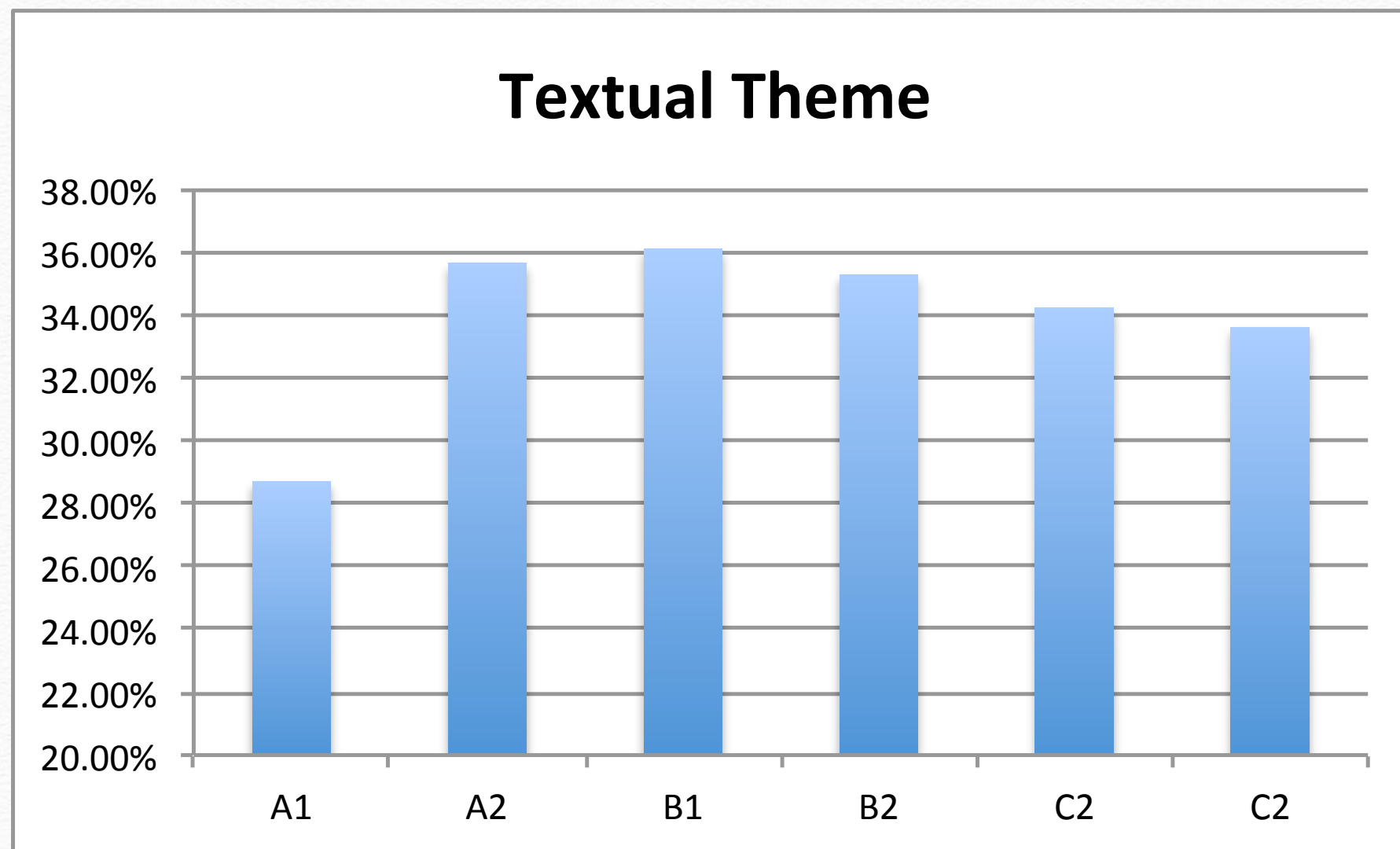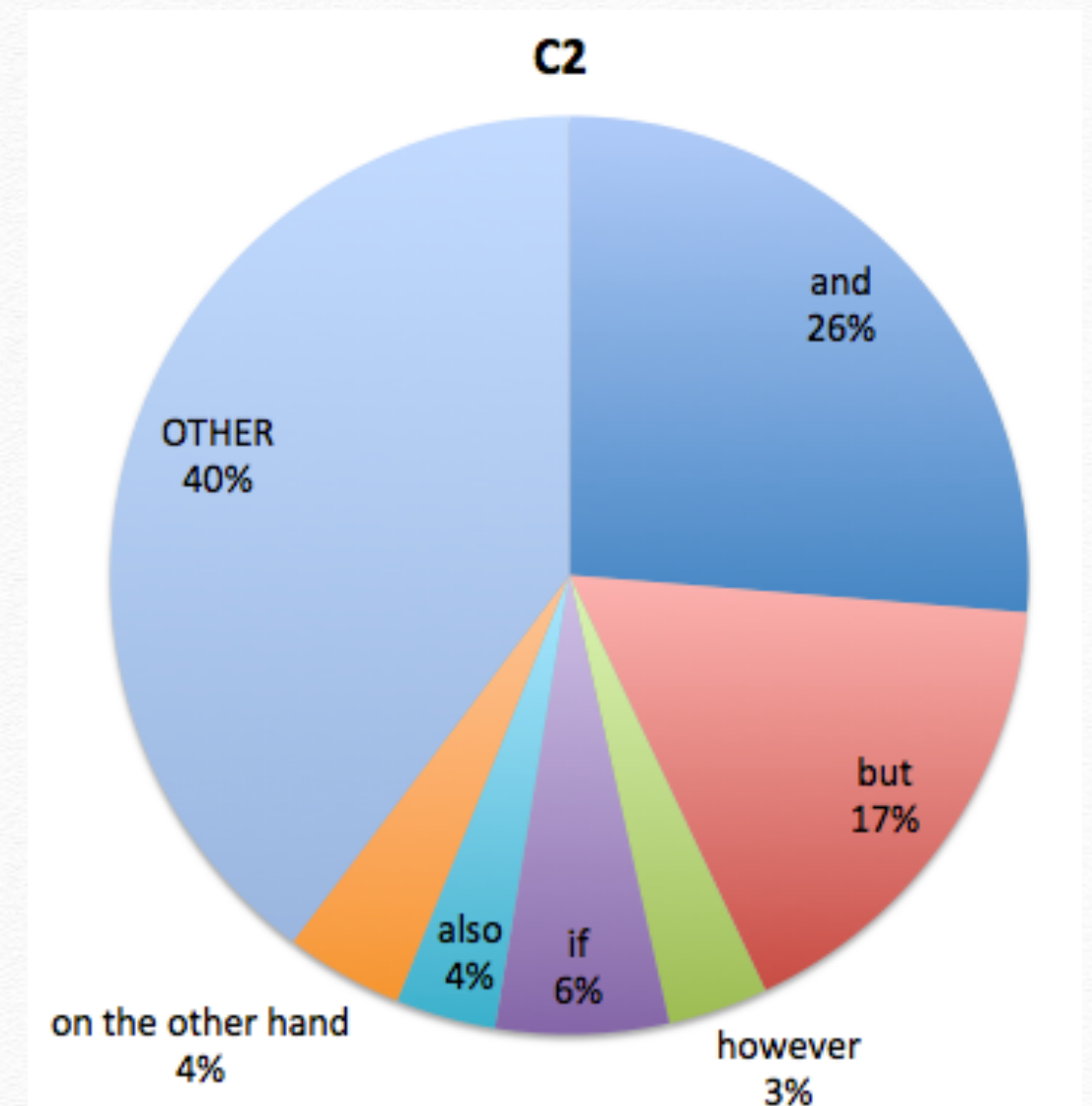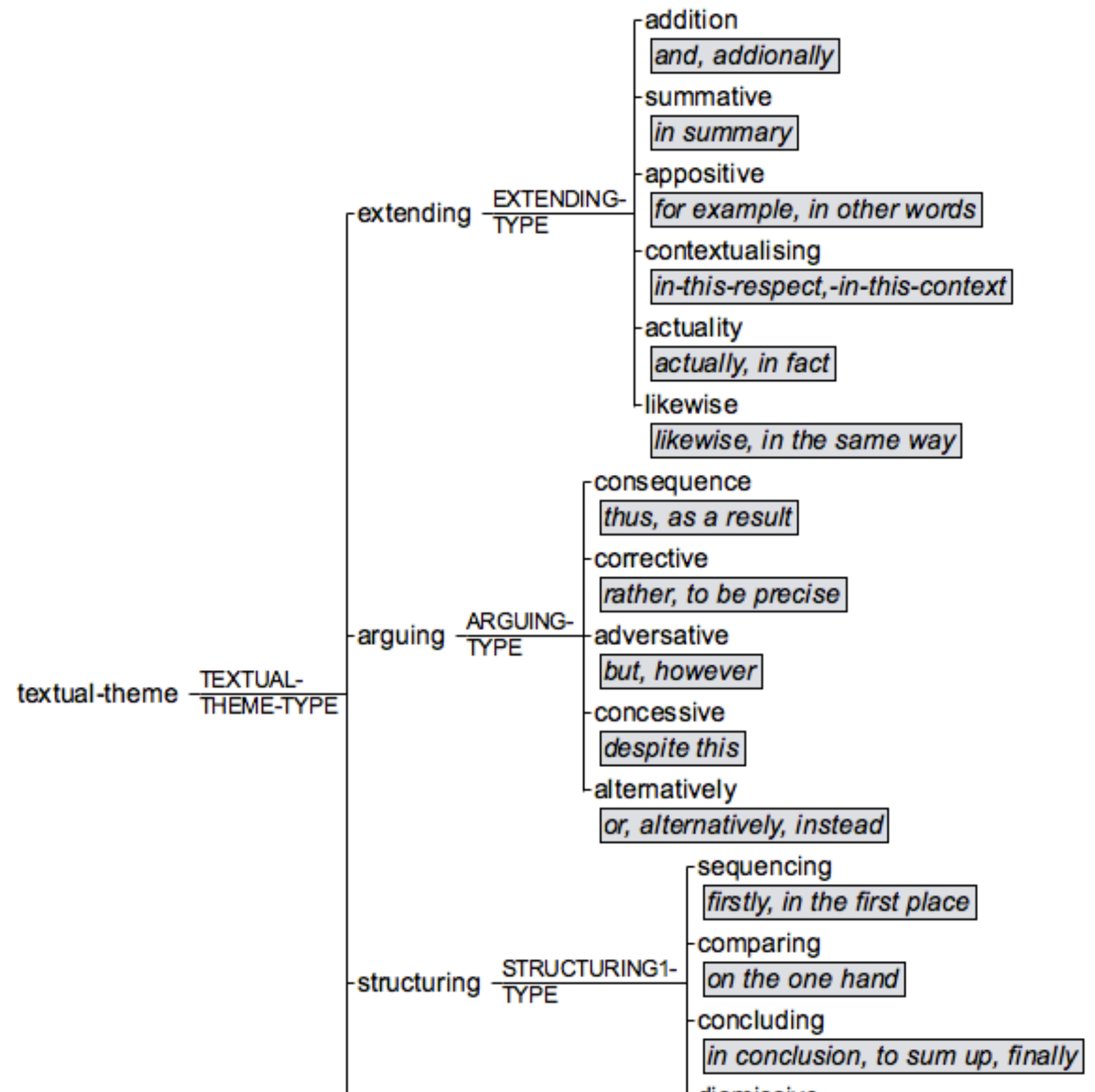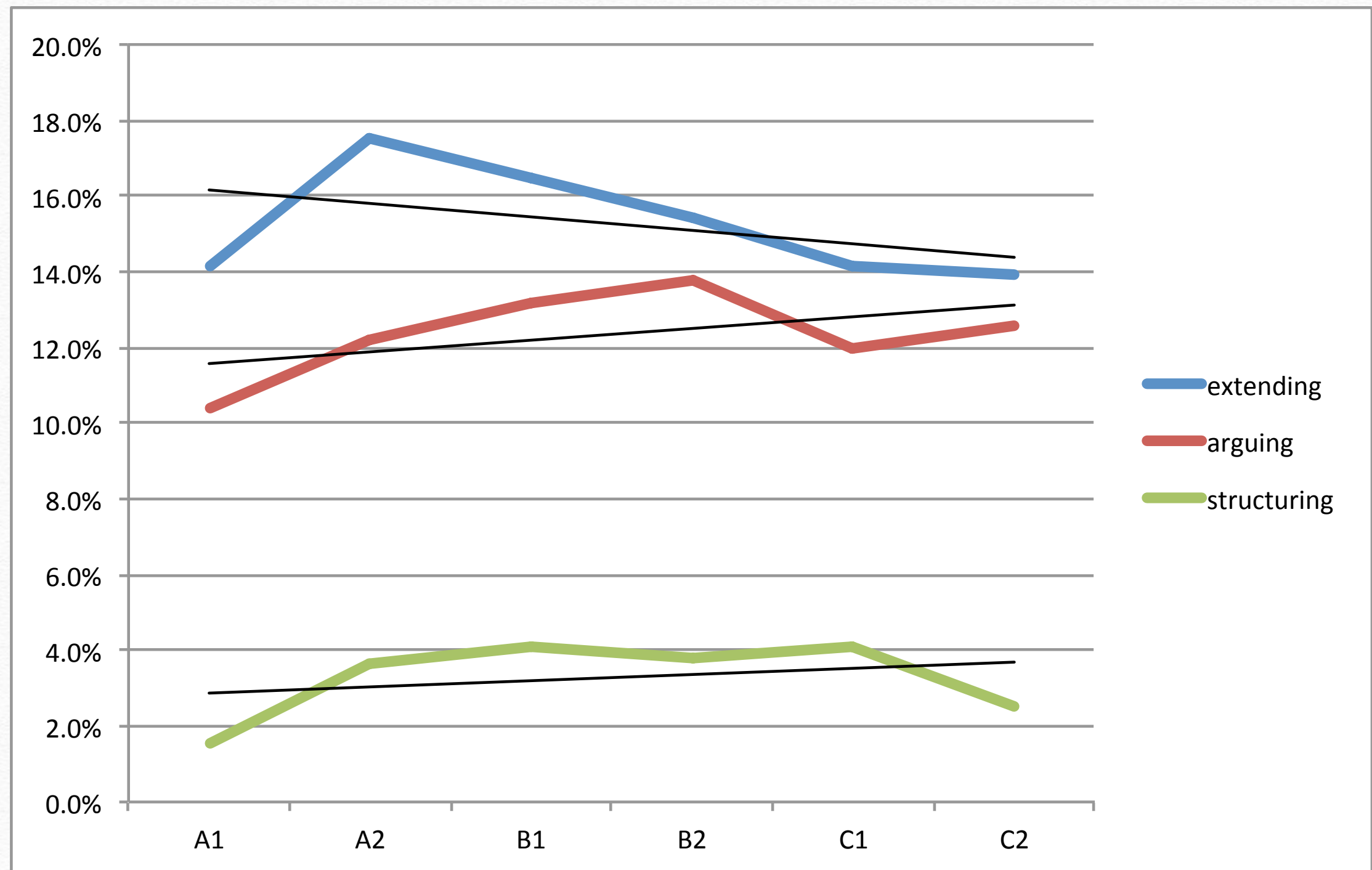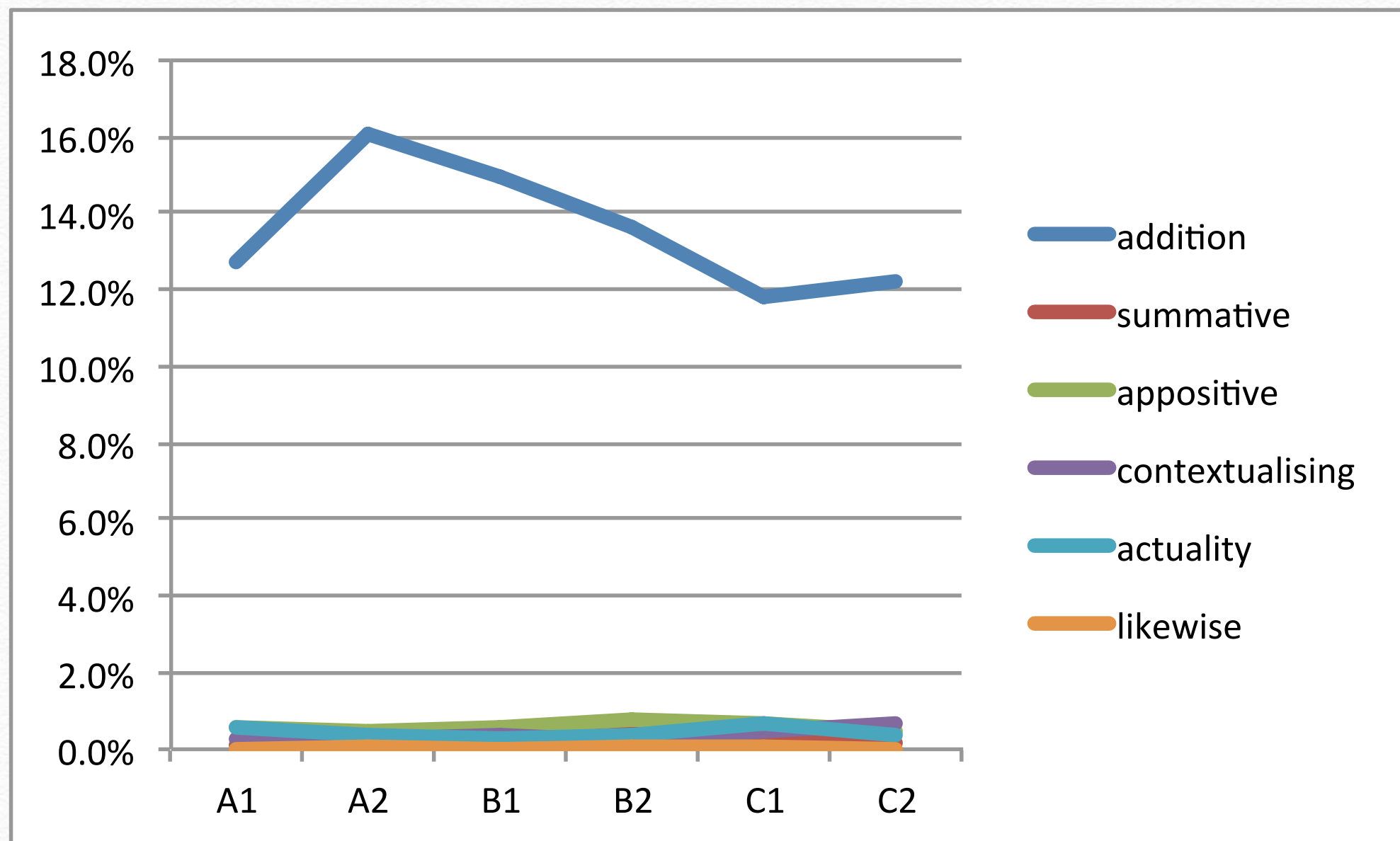
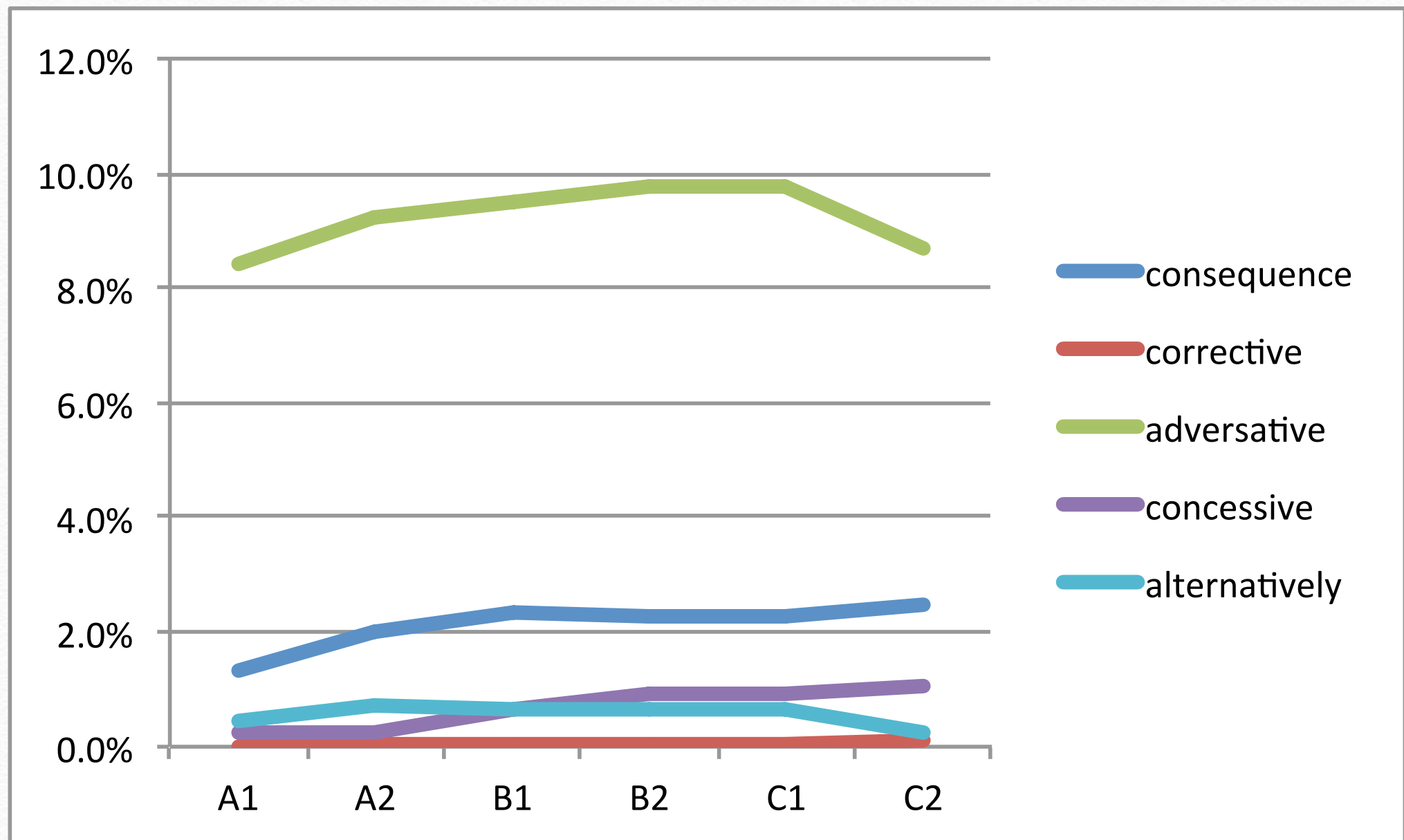# Results: Textual markers by semantics
(as percent of T-units)

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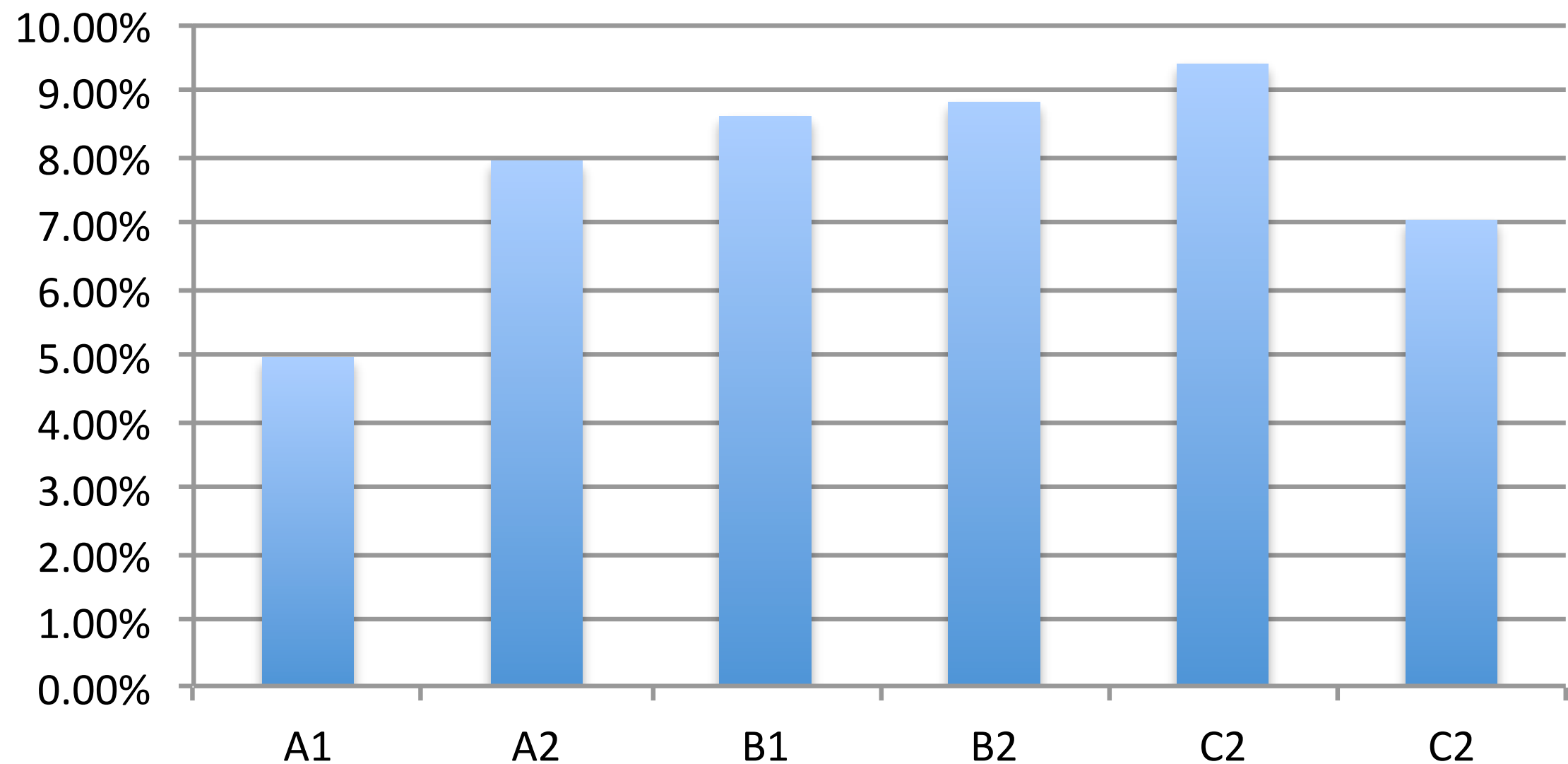## (as percent of T-units)

Extending Textual Markers

Results: Textual markers by semantics
(as percent of T-units)
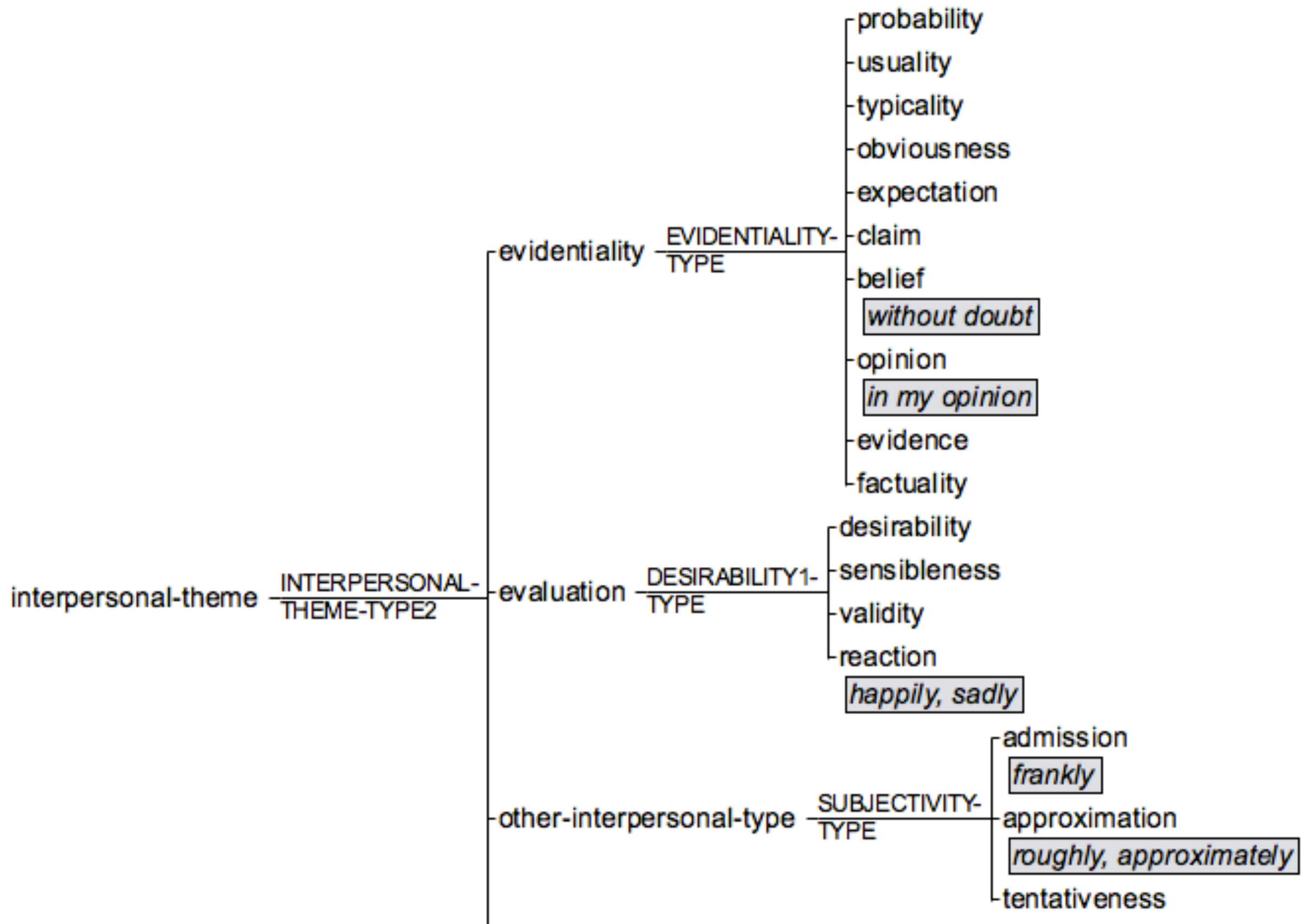
Arguing Textual Markers

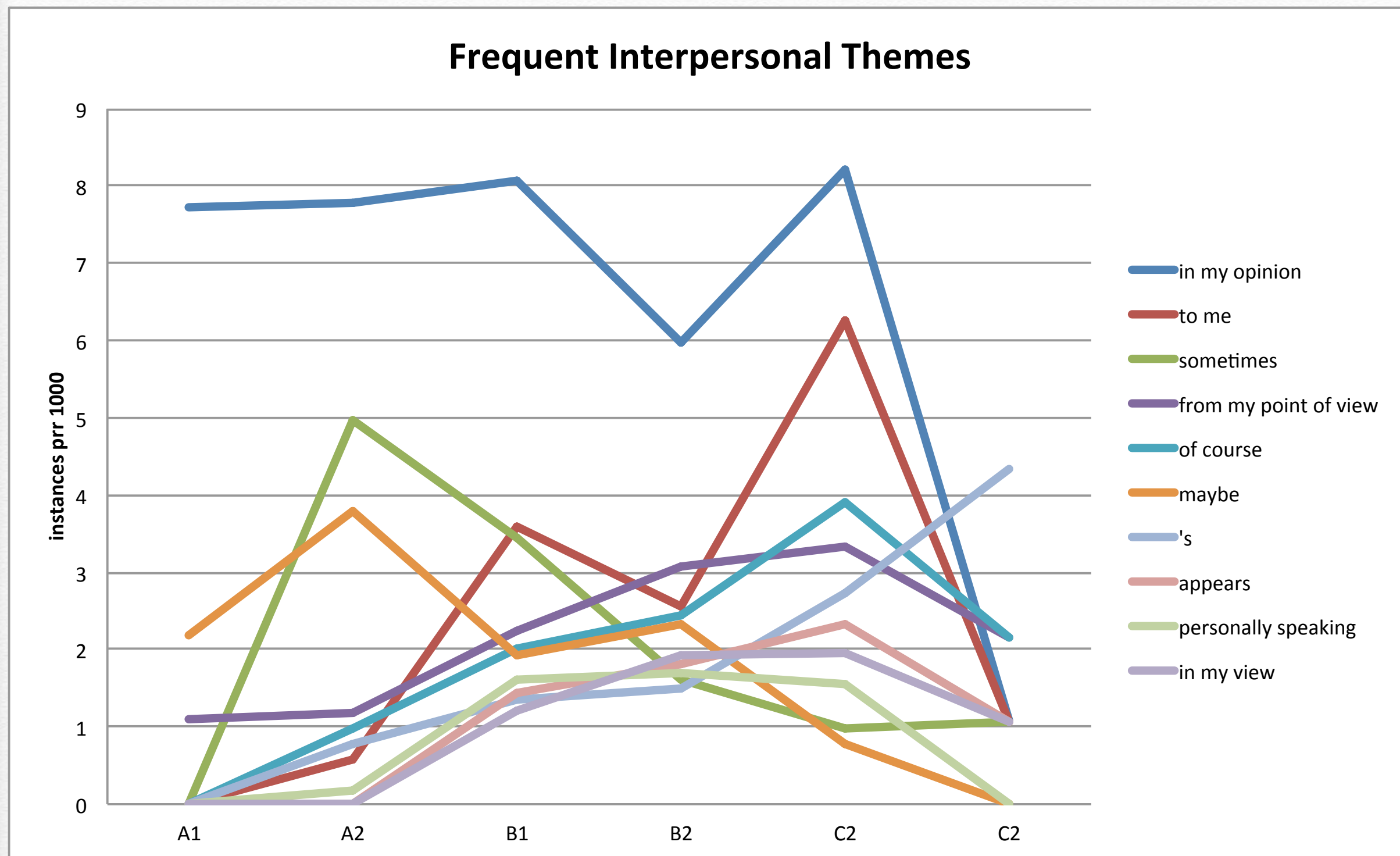# Results: Use of Interpersonal Themes
(as percent of T-units)

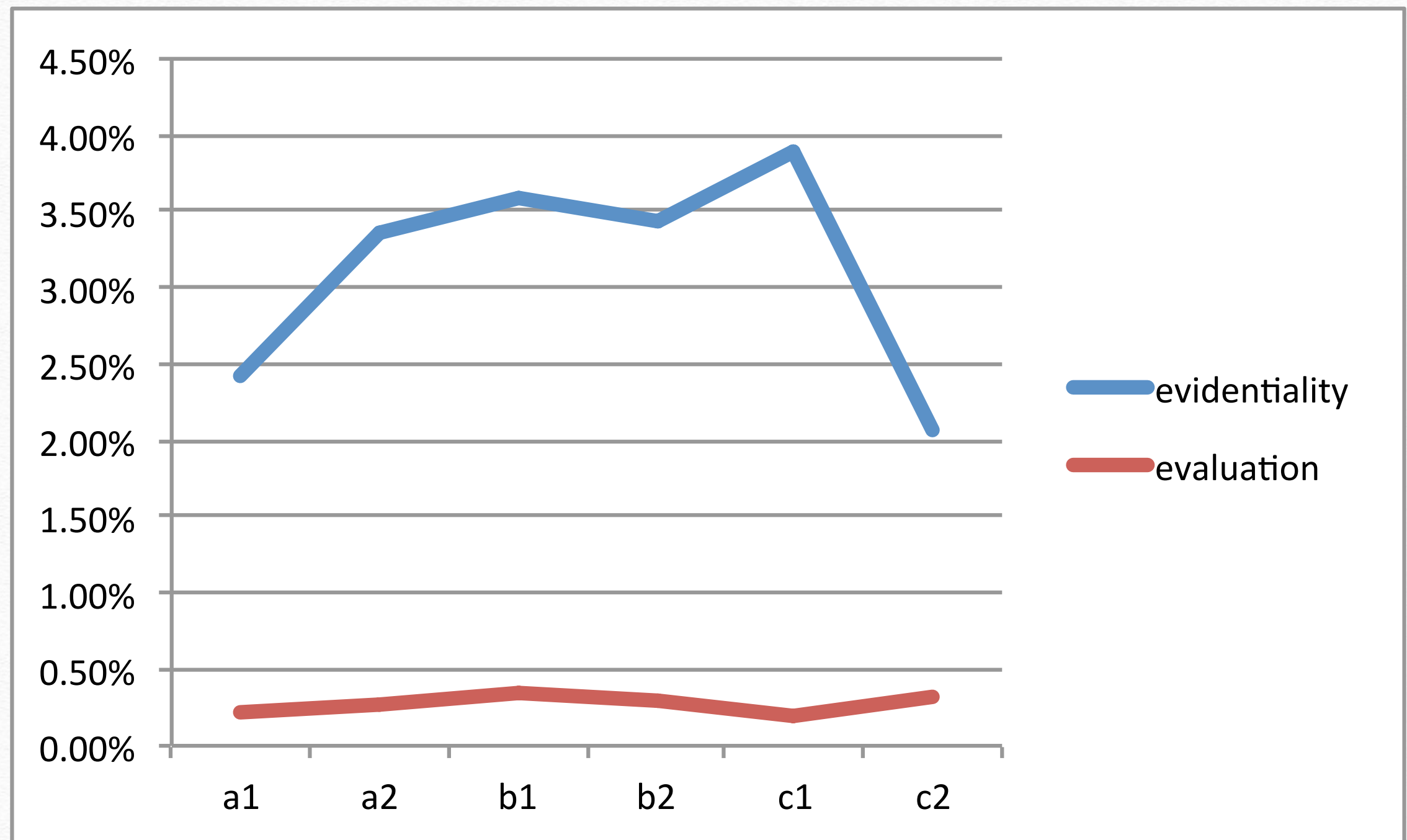**Interpersonal Themes**

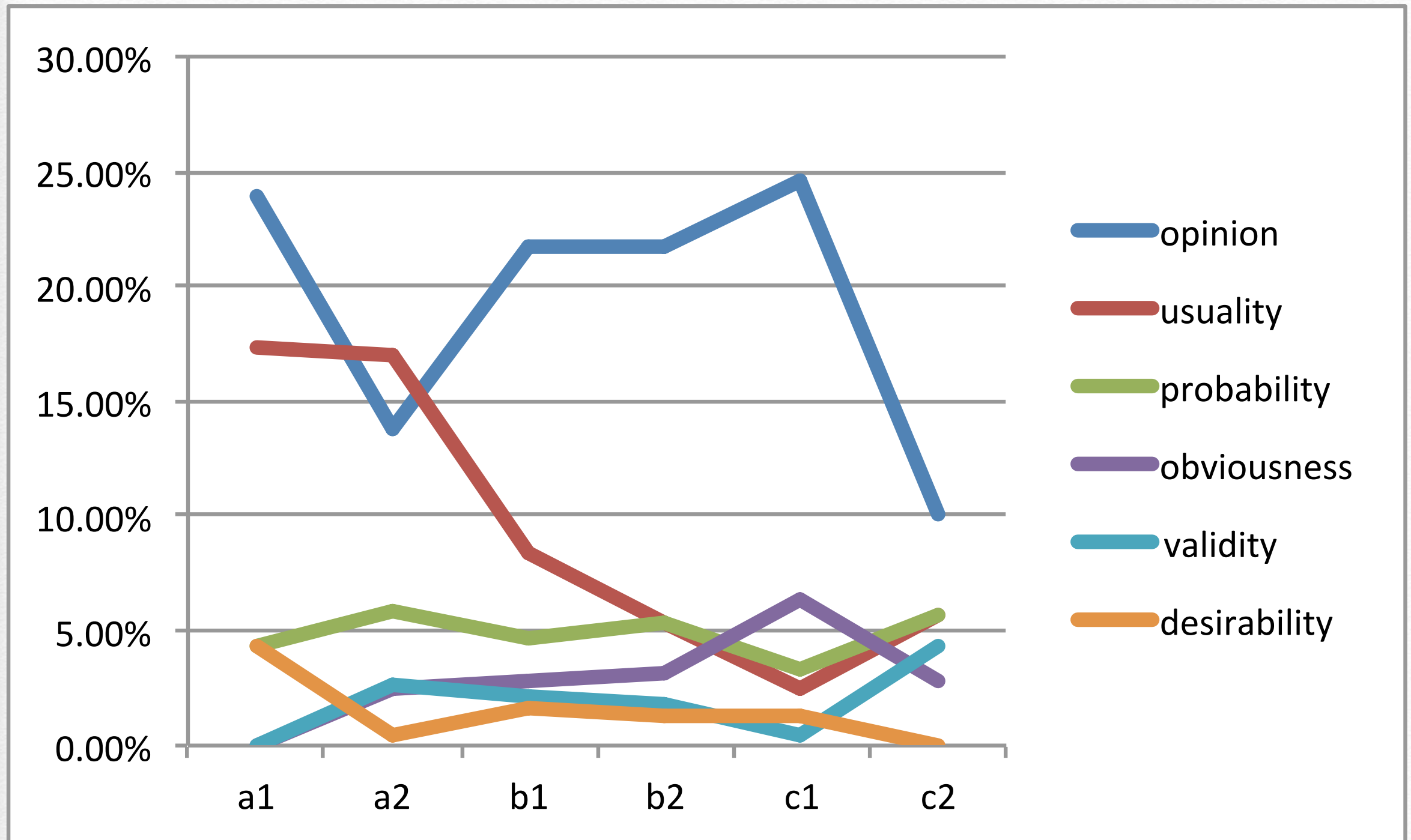# Interpersonal markers by semantics

Interpersonal Themes
(per 1000 T-units)

Frequent Interpersonal Themes

Interpersonal Themes by Type
(as % of T-units)

Interpersonal Themes by Type
(as % of interpersonal tokens)

5. Discussion

Discussion

- Results not as clear-cut as I expected
    - graphs show U-shapes, not clear rise or fall.
    - Similar studies on Transitivity, tense-aspect, errors with corpus show clearer trends.
- Development of thematic proficiency obviously more complex than I thought.
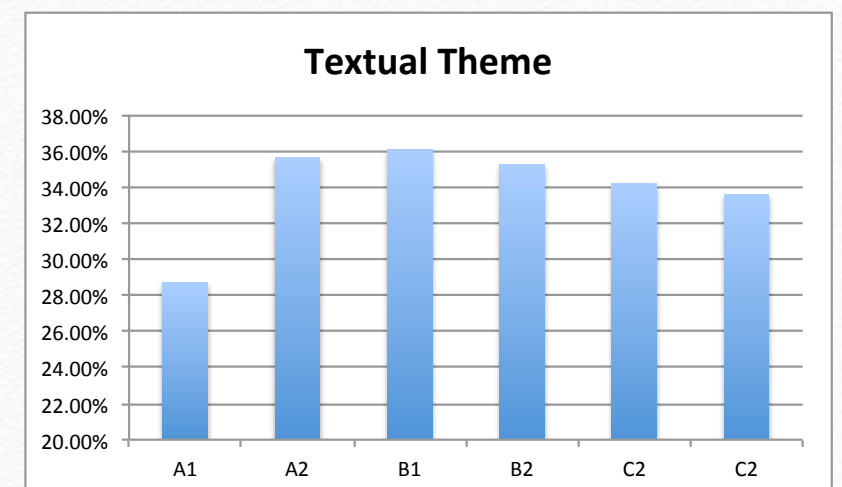
Discussion

Topical Seelction:

❖ No use of Complement themes

❖ Slight increase in Adjunct themes after initial slump

Legend:
- unmarked-ideat-theme
- adjunct-ideat-theme
- complement-theme
- No Theme
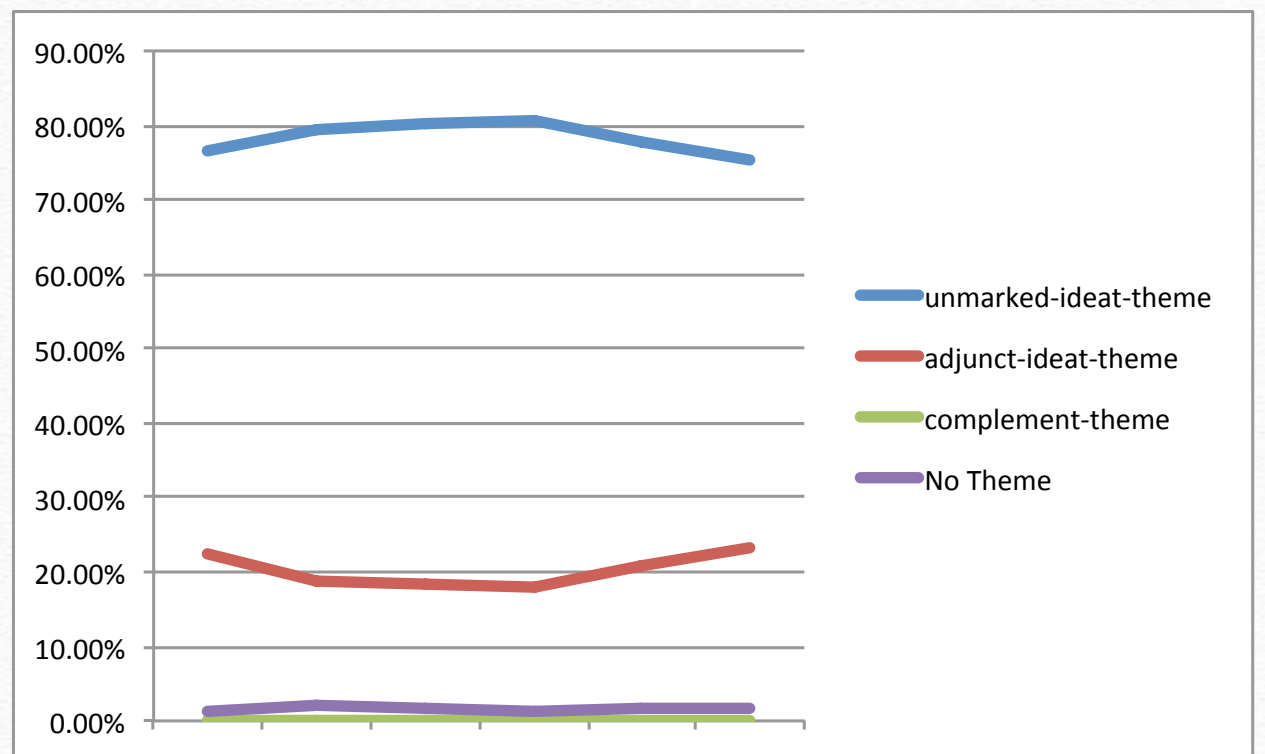
Discussion

Textual Themes:

❖ Fall in use of Textual markers with proficiency

❖ Mainly in the area of **Extending** markers ("and", "additionally").

❖ Increased use of A**rgumentative** markers (adversative, concession, consequence)

❖ Some rise in **Structuring** markers ("secondly", etc.)

Textual Theme

38.00%	
36.00%	
34.00%	
32.00%	
30.00%	
28.00%	
26.00%	
24.00%	
22.00%	
20.00%	A1 A2 B1 B2 C2 C2

Discussion

Interpersonal Themes:

❖ In general, interpersonal themes more frequent with increasing proficiency.

❖ Evidentiality markers (probability etc.) rises then falls,

❖ Evaluative markers (honestly, sadly, etc.) fairly constant but not common.