

# **Text mining and defense inference in discourse analysis in psychology**

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This study takes place in the context of the project of implementation of:

David Maldavsky's DLA methodology of discourse analysis

in

Horacio Saggion's NLP GATE tool

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**Subject of interest for the Argentine Secretary of Science and Technology which has subsidized this workshop**

- Wishes and defenses in Freudian theory
- Operationalization of wishes and defenses in DLA method of discourse analysis
- Annotation of defenses in GATE NLP tool

**CONTENTS**

- **Previously:**  
discourse analysis was carried out in lineal fashion.
- **Nowadays:**  
because of the information overload, discourse analysis is selective
- **The objective:**  
a representative sample that complies with validity and reliability requirements

**TEXT MINING in psychology**  
**discourse analysis**

- Manual or IT supported
- Identify key information
- Consists in:
  - Extraction of relevant data
  - Classification of information according to patterns
  - Interpretation of results
  - Organization of results in data bases
  - Hypothesis construction and testing

**Effectiveness of TM for discourse analysis in psychology**

- Wishes
  - Survival
  - Species propagation, sex, love
  - Personal growth
- Wishes are components of Eros (life drive / libido)
- Normal defenses are a successful effort of Eros to neutralize the death drive / mortido
- Pathogenic defenses involve masochism and alteration of the self preservation drives

**Theoretical basis for this project:  
Defense concept in DLA and  
Freudian theory**

EGO	WISH	PATHOLOGICAL DEFENSES
Primitive reality	IL	- For wishes - Against affect Foreclosure of the affect
Auto-eroticism	O1	- For wishes - Against reality and Superego
Purified pleasure	O2, A1	Disavowal, foreclosure of reality and ideal
Definitive reality	A2, UPH, GPH	- For reality and Superego - Against wishes Repression

## ALL EGO STRUCTURES - FUNCTIONAL DEFENSES

according to the goal, creativity, sublimation

# Ego structures, wishes, defenses

- **Defenses:** transactions between wishes to preserve the Ego from perceptions, affects, judgments by refuting, abolishing the Ego (definitive, superego, primitive). regressing from PREC to UCC, changing goals of wishes

Transactions can be: successful – failed - both

- **Cluster model**

- **Normal or functional defenses:**
  - According to the goal
  - Creativity
  - Sublimation
- **Pathological defenses:**
  - Repression (neuroses)
  - Disavowal (pathological character traits)
  - foreclosure of reality or ideal (psychoses)
  - Foreclosure of affect (traumatic and toxic pathologies)

**DEFENSE**

**from theory to research practice**



- Operationalization of wishes and defenses in the DLA
  - Wishes (attitudes, motivation, values, criteria)
    - Levels: words, speech acts, narration
  - Defenses
    - Levels: speech acts, narration
    - Normal or functional defenses: according to the goal, creativity, sublimation
    - Pathological defenses: repression, disavowal, foreclosure of reality or ideal / of affect
  - State of the defense: successful, failed, both
  - Function of defense: main, complementary

## **DEFENSE ANALYSIS** **in DLA methodology**

Messages Corpus Pipeline... Corpus Pipeline... Lorena\_Proyecto...

Annotation Sets Annotations List Co-reference Editor OAT Text

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estaba  
atada

Word

adi	A2;A1	X
category	VLadj	X
root	atar	X
string	atada	X

**Defense**

a) Functional  
b) Pathological

**A2**

a) according to the goal, creativity, sublimation  
b) repression

**A1:**

a) according to the goal, creativity, sublimation  
b) disavowal, foreclosure of reality / ideal

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142	32	{adi=, category=CM, root=, string=}
149	33	{adi=A1;O2, category=VLfin, root=estar, string=estaba}
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167	37	{adi=, category=CM, root=, string=}

3470 Annotations (1 selected) Select:

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# DEFENSE as attribute in NLP tool GATE

- Words level
  - Orientation
- Speech acts level:
  - Proportion of A2, A1 appearing in vocabulary /discourse
- State of the defense
  - Can be inferred from the wishes present in the last speech act of each paragraph

**Advantages for researchers**

- THANK YOU