

Communication and Argumentation

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March 21, 2021

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1 Introduction

Course themes

- Linguistic
- Retic
- Presentation Skills
- Argumentation (and Manipulation)
- Grant-writing
- How to write papers

How to learn communication (according to Cicero)

- Study the theory
- Copy the technique of good communicators
- Practice on communication

How we'll learn during the course

- Classes
- Labs
- MOOC (like coursera)
- Tutoring for the final project

Exam structure 60% of the grade from written test, 40% from project.

Written test will consist of 6 open questions. One of those **will be** "Find 4 examples of arguments in your field of study, identify and discuss them"

Project simulation of a proposal for PoliHub/Research Council

2 Communication: basic principles

Languages are made of signs. The existence of the concept implies the existence of an intelligence capable of relating two elements: **signifier** and **signified**. For example, fire by itself is just smoke, but intelligence can read it as a sign of a fire.

Signifier is the element used as a sign: the smoke in the example above

Signified is the element the sign stands for: the fire in the example above

2.1 Four big consequences of using signs

Allow to transmit knowledge beyond direct acquaintance Of course we acquire some of our knowledge by direct experience. Symbolical representation of languages allow knowledge to be transmitted even in absence of direct acquaintance.

This can be achieved because signs work by abstraction: from a concrete object we abstract the concept of it, and are able to use it as a sign.

Anyway, without direct acquaintance, no new knowledge can be generated

Allows to expand knowledge by combining concepts together Languages are like LEGO blocks: we can combine signs to obtain new ones. For example, *Not+Finite=Infinite*. The concept of infinite cannot be experienced ever, but we are able to get it combining other concepts.

We can create things that does not exist For example we can create the concept of *Teleportation*= $\overset{\text{distance}}{\underbrace{Tele}} + \overset{\text{moving}}{\underbrace{Port}}$

We can lie

2.2 How signs work

What is a sign? It is composed by a signifier and a signified

Signifier is the element bringing a meaning

Signified the meaning

Signs are, however, arbitrary. Different types of arbitraries exist:

Arbitrary of the signifier: If we all agree to call books "Kikoo", language would still work

Arbitrary of the signified: The same sign (word) can represent different object: the Italian word *porta* can be translated to *door* or to *brings*

2.3 What is a "text"?

Text is an extended structure of syntactic units, any meaningful linguistic production, both oral and written.

Text interpretation is mostly non verbal, as the verbal components are the little part.

Co-text is essential to understand the overall meaning. Co-text refers to the "text around". It is determined by both:

the other sentences: Aldo asked me 10€. $\begin{matrix} \text{He loaned me 5€} \\ \text{He loaned me 15€} \end{matrix}$. → The picked sentence determines if Aldo is kind or greedy.

the arrangement of other sentences: Louis is good. His father bought him a pc → pc is a reward
His father bought him a pc. Louis is good → good at using the pc

Con-text Is the world around the text. The context contains the cotext, but also includes elements of knowledge that are external from the text itself.

Encyclopedia represents our knowlegde of the world: without external knowl- edge wwe would not get any conceptual difference between green eyes and red eyes. But from our personal encyclopedia, we know that red eyes are uncommon, and are maybe a sign for a disease, while green eyes are pretty normal.

2.4 Elements of good communication

Reference Communication must be understandable: a good communicator must be able to identify a common ground for communication (common knowl- edge).

3 Rhetoric

Rhetoric ("the art of speaking") is born in the Greek democracy.

It is an art, with principles and rules.

By itself, rhetoric is neutral, but it can be used to both manipulate or to persuade.

Bad use of rhetoric In Greek there was a rhetor, Corax, who instructed another man, Tisias, on rhetoric.

Tisias refused to pay Corax, and in court he defended itself saying *If i loose the trail, I don't have to pay Corax, as he was not a good teacher. If I win the case, I don't have to pay Corax by law.*

Elements of rhetorics: We will divide rhetoric into sub-steps:

- Finding good arguments
- Arranging arguments properly
- Choose the best style for the speech
- Put the audience at the center of our attention
- Calibrate our communication based on the common ground

3.1 Invention: finding what to say

Invention is finding what to say o create our communication. Invention is brainstorming.

Ancient orators suggest to take into consideration three aspects:

ethos: the credibility of the speaker

pathos: the effects on the audience

logos: the facts about the things under discussion

For example, in a typical project proposal people focuses a lot on technical facts (logos). A level up is to point out how you will be capable of running the project (ethos) and the benefits the project will bring to the company (pathos)

Prepare to objections anticipating objections allows us to reply brilliantly, avoiding to freeze and create an embarrassing situation.

It is also useful, for our own organization, to categorize the possible objection, in order to be more efficient in preparing the answers and in remembering it

Anticipate wishes What is the audience wishing? Anticipating the wishes allows us to create a sensation of satisfaction, which will lead to a positive overall perception

Brain-mapping After we think we gathered enough material, we want to group it. A possible grouping may be ethos-pathos-logos, but also more domain-specific groupings are possible
Grouping allows us to check whether we have enough of everything.

Conclusion Invention is crucial. Being essentially brainstorming, it works better if performed in group. Also, keep in mind that invention will always be "opened", it will not end after the first time you perform it. The contents will change overtime, influenced by new information. Some new topics may emerge, some other may become not relevant.
Finally, keep in mind that invention takes time. Ideas come where they want, not when you command

3.2 Arrangement: organizing the communication

Is the act of picking the best order of our argument. The ways to arrange depends on the context: for example whether the communication will be oral or written, may be interrupted or not, and other

Nestorian order can be used in both written and oral communication. It requires to have the full and continuous attention of the audience → no interruptions. This is because if the communication is interrupted, strong arguments may be lost.
The Nestorian structure is **Strong arguments → Weak arguments → Strong arguments**.

Descending climax The structure is **Strongest arguments → Strong arguments → Weak arguments → Weakest arguments**.

Ascending climax The structure is **Weakest arguments → Weak arguments → Strong arguments → Strongest arguments**. This is desirable when we want to be sure to have an emotional effect, and we are sure that we will not be interrupted.

3.2.1 Beginning of the speech

Captatio benevolentiae is the act of winning the favor of the audience. It can be achieved in three ways:

- Pleasing the audience
- Putting yourself into the shoes of the audience
- Playing humble and be self ironic

3.3 Style: dressing ideas in words

There are more ways in which you can express an idea, and the way we choose will make a difference on how the content is perceived. In this section we will learn how to choose one.

Elocutio reminds that a good text has to be correct, clear and appropriate to the situation

Ornament is using rhetorical figures to deflect the normal use of language with the purpose of provide a vivid image

3.3.1 Rhetorical figures

Metaphor making reference to something by means of something else.

Analogy a comparison meant to help the audience to connect to an idea.

Anaphora is the repetition of the same word/expression at the beginning of successive clauses.

Suggested to dig out for more by ourself

3.4 Common Ground

The collection of mutual knowledge, mutual beliefs and mutual assumptions that is essential for communication between two people (Herbert Clark)

We will consider, in general, Common Ground as Shared Knowledge.

Common ground mistakes

- Taking for granted not shared knowledge
- Explaining knowledge that is already known

3.5 Proposed exercises

Exercise 1: "good plagiarism" Don't be afraid, it's ok. And do be sure that I know that "real" plagiarism is bad. But it can also be used for the good, as in this exercise.

Cicero said that you learn by imitation. You find a report that according to you is well organized? Try to "copy" it, organizing YOUR report using that schema. You find an "introduction" paragraph that arranges arguments in a way you feel is effective?

Try to do the same for the introductory paragraph of YOUR scientific paper. And so on.

Exercise 2: “Talk to the most unlikely audience” This exercise is about common ground and being clear.

Take a technical topic (related to your research) and make a presentation (e.g. a 15 minutes oral presentation) meant for somebody with a different background (e.g. in humanities) or with a different education level (e.g. high-school students or even primary school children) or for someone completely far from the field you are active in (e.g. your grand-father?).

Try to find a way to actually deliver the presentation and get feedback, it will be eye-opening!

Exercise 3: “Give yourself a goal” This exercise is about invention. The same topic (e.g. a research activity) can give vent to quite different kinds of communication, according to a number of parameters (the goal, the audience, the context...). In this exercise, you are required to work on the goal.

Create a presentation about the topic of your research with the goal of getting funds for it, another with the goal of conveying to fellow scientists the significance of your work, etc.

If you have the option to actually find someone who might fit into your hypothetical scenario, give the presentation and collect feedback. But even if you can't, the sheer exercise of choosing the proper topics (exercise on “key messages”) to fit the goal will bring substantial benefits to your communication skills.

4 How to persuade

4.1 Introduction

Argument action of supporting different opinions

Argumentum ad populum Fallacious argument that the most popular opinion is the most correct

Usages of argumentation in science

- Defend the relevance of your research topic
- Persuade investors/partners
- Get accepted for an internship

4.2 Syllogisms

Syllogism Form of reasoning structured as follows:

Major premise + Minor premise \implies Conclusion

In syllogisms, the major premise is a universal truth

Enthymemes Form of reasoning structured as syllogisms, but where the major premise is not universally true but instead generally true. Enthymemes are the base of discussions.

4.3 Ways to arguments

Facts and data do not need to be shaped: they just need to be found, collected, selected, and placed at the right moment.

How to respond to data

Dispute the fact *This is false*

Challenge the relevance *This is not relevant to the point we're making*

Dispute that the data is partial and so not valid

Outnumber the data with more other data

Topoi patterns of reasoning stored in our cognitive functionalities

The more and less likely "If the most likely thing does not happen, then the less likely thing also will not happen"

Contraries Based on the principles of not contradiction: "If A is true, then $\neg A$ is false"

Examples trigger inductive form of reasoning.

Similarity By showing a similar argument, trigger a generalization "moving the truth" of the similar into the original

4.4 Quasi-logic arguments

Derive their strength from the resemblance to mathematical/logical demonstrations

Reciprocity argument relying on the assumption of symmetry between two situations \implies what applies to one must apply to the other

Objecting can be performed only by negating the validity of the symmetry

Rule of justice *Two beings or situations falling under the same category or genre should be dealt with in the same manner*

Complex question taking for granted something that might deserved to be discussed

Transitivity $A : B = B : C$ *our friend's friends are our friends*

Objecting invalidate the parallelism

Sacrifice states that if something costs a lot it must be valuable

Quantity *A lot means good*: a lot of publications means a scholar is good

4.5 Fallacies

Fallacies are arguments that are apparently correct in form but invalid

Appeal to ignorance If a proposition has not been disproved, then it cannot be considered true, then it must be considered true. *God exists because nobody disproved its existence*

Straw man fallacy modify the interlocutor thesis from A to B, and then objecting to B.

Irreparable direction Draw something as a *now or never* choice, implying that it is good (works because people fear regret)

Argument from authority Appealing to an authority (not necessarily a juridical one, an important person in the field is ok too) to support the thesis. Authorities are not truth by the way.

4.6 Proposed exercises

Exercise 1: “Mary dyed her hair green” Take the “Mary dyed her hair green” dialogue and try to identify the arguments used in it and the “hidden assumptions” the enthymemes at work in it are based on. Then, try to come up with further ways to reply to those arguments.

Decide which side you want to support and fight for that! You may want to share in the course’s forum, to get your peers’ feedback.

Exercise 2: “The Titanic dilemma” Imagine you are safely on board one of the Titanic’s life-boats, watching as the ship sinks. You are discussing with the other people on the boat: shall we go back and try to save more lives or shall we keep “safe” where we are? Brainstorm about arguments in favor of both stands (in turn: 15 minutes in favor of one, 15 minutes in favor of the other).

If you can find someone willing to do this exercise with you, take one position and ask the other person to play the “opponent”. This a small debate exercise, focused on invention.

Exercise 3: “It is as if” Take a claim you would like to support and try to find arguments by analogy (the “it is as if” way).

Exercise 4: “Arguments’ reverse engineering” Take a scientific paper and try to identify if there is any “argument” embedded in it (by analogy, of the more or less likely, of contrary, of authority...).

Exercise 5: “The going backward dialogue” In order to train yourself to identify the major premises of enthymemes, you can perform the “going backward dialogue”. Number one: select a victim (a good friend of yours, your mother...). Start a dialogue on whatever topic you want (“How can we save humanity?” or “What should we eat for dinner?”).

Instead of moving on in the dialogue, identify the major premises of what the interlocutor says and put them into question, thus “going backward” instead of cooperating (“moving forward”). This is quite annoying for the interlocutor so I strongly suggest to stop after a while and apologize. Apart from training yourself into the identification of hidden premises (which is always useful), you will come up with interesting discoveries on what people base their everyday

reasonings on (I call it their “metaphysics”)...
Discuss your findings in the forum.

A Communication Tips

Acronyms must always be explained at least once.

Correctness of grammar and semantic.

Be informative Saying *he has 2 eyes, 1 mouth* is useless when describing a person.

Be relevant ensure to answer any open question, be it explicit or implicit.

B Argumentation tips

Choose good major premises in particular, choose ones that the interlocutor agrees on

Identify the major premises of the interlocutor to decide if you agree, and in case doubt about the major premise instead of less relevant elements

Leave the conclusion implicit may bring satisfaction to the interlocutor, leading to a more solid adhesion to the thesis. This should not be done for key points.

Take some arguments for granted reduces the chance of them to be discussed

C Likely exam questions/arguments

Find 4 example of arguments in your field, identify and discuss them

Ambiguity of signs 2.2