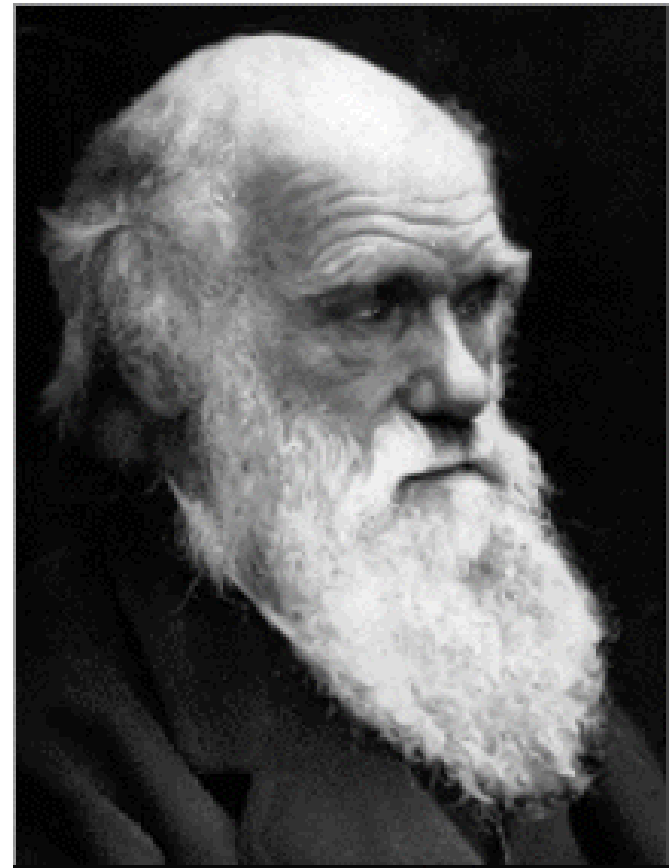
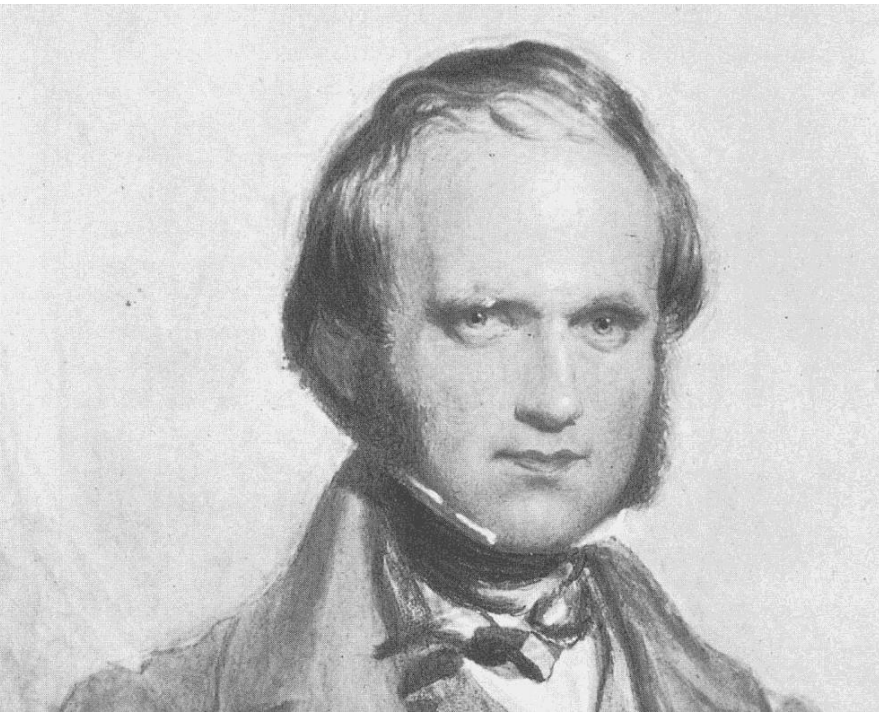


# Darwin, my hero - and anti-hero



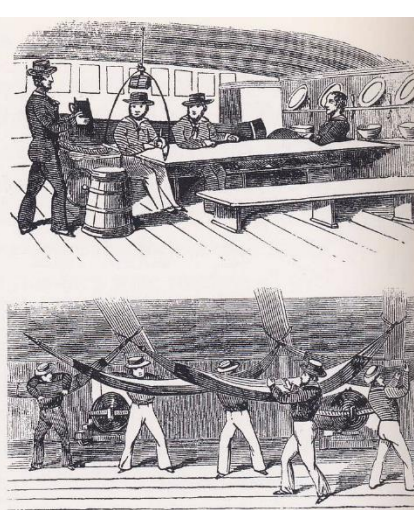
# Darwin, the aristocrat



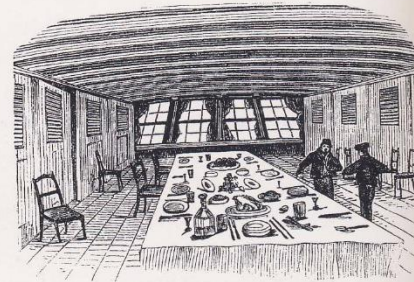
Mary (This is the question) Not Mary

Children (These 20) - Constant Companion, - but in 20 age - what is the use of working  
 who will feel interest in me - Sport in the - is without sympathy from near & dear friends -  
 beloved & played with - better than a dog anyhow - who are near & dear friends to the 20. kept  
 to take care of house - class of nurse, - relation freedom to go where one liked -  
 friends - water shot - these things good for choice of society & little party - consolation  
 for me health - I have to visit & receive of dear men to clubs - not forced to  
 visit relation, & to bend in every trifles -  
 relation at terrible loss of time - & to have the expense & anxiety of children -  
 to my 20, it is worthless to think of before travelling - loss of time - cannot  
 of 20 years old life: like a winter read in the evenings - fatigue & sleep -  
 bee, or long, waking & resting after anxiety, responsibility - up money for books &  
 all day long, working & writing after if many children forced to pursue his head -  
 all day long, working & writing after (But then it is very bad to work too much)  
 all day long, working & writing after Perhaps my wife won't like freedom then  
 all day long, working & writing after the sentence in banishment & degradation  
 all day long, working & writing after with indolent, idle fool -

Mary - Mary - Mary 20. D.



# H. M. S. Beagle



Living on board ship was like being in gaol, said Samuel Johnson, with the added disadvantage of being drowned.

(*Illustrated London News*)

The traditional ceremony of crossing the line, drawn by Augustus Earle, the *Beagle's* artist.

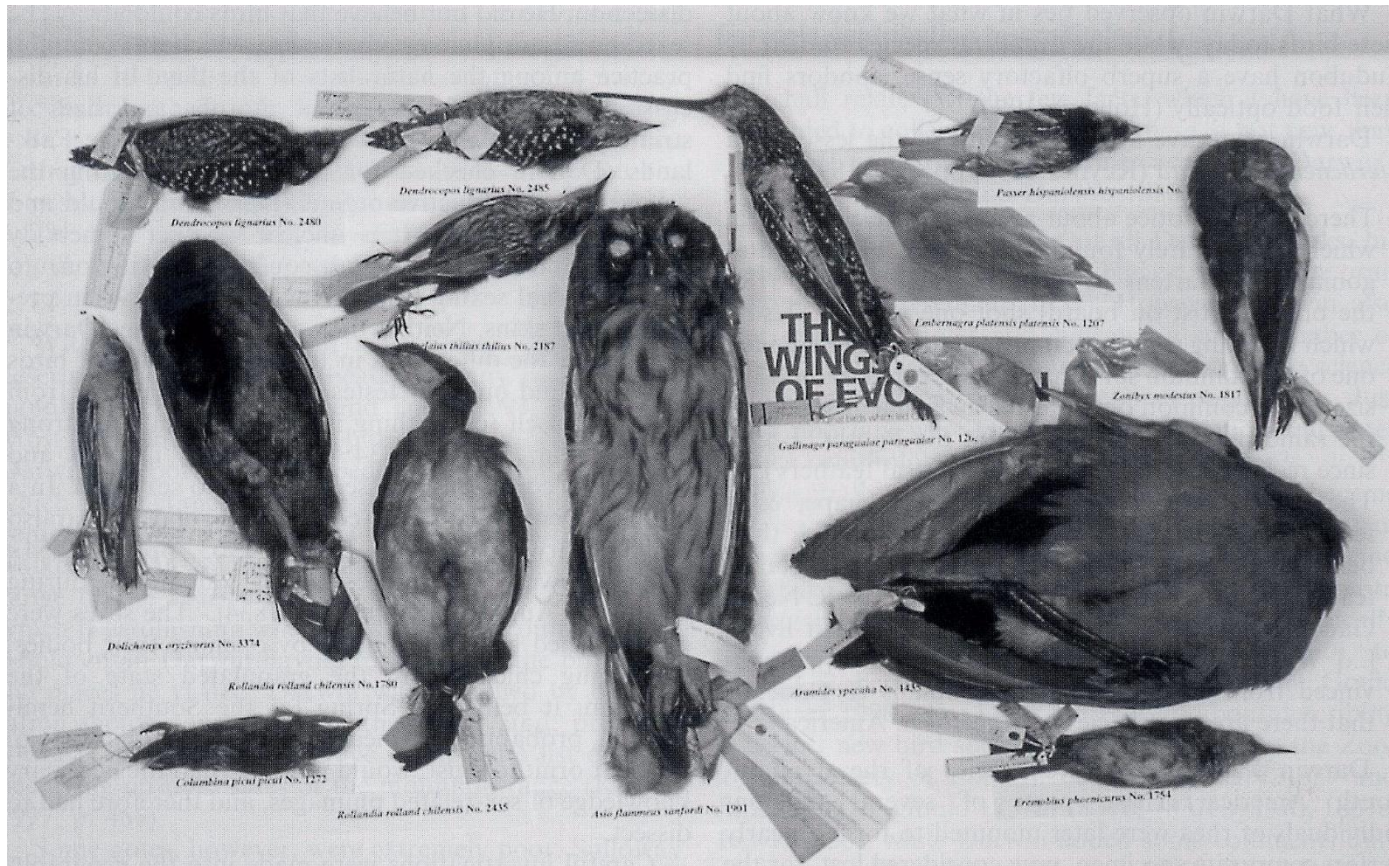
(R. FitzRoy, *Narrative* 1839.  
Wellcome Institute Library, London)



# Captain Robert FitzRoy



# Darwin's specimens

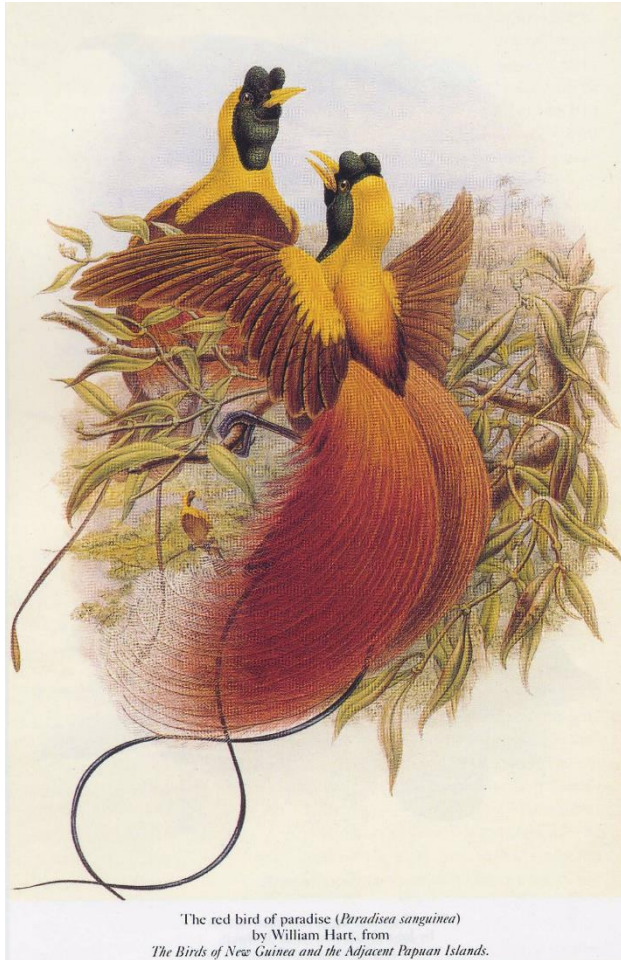


# Darwin's labels

# John Gould



# Taxidermy and ornithology





John Gould His Birds and Beasts

# Elizabeth Gould



# Expeditions to Australia



# Hummingbird exhibition





**Long-tailed Mockingbird**



**Galapagos Mockingbird**



**Hood Mockingbird**



**Chatham Mockingbird**



**Charles Mockingbird**

# Galapagos hawk

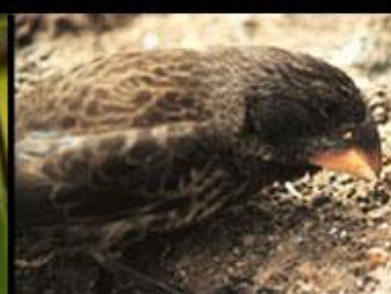




small ground finch



medium ground finch



large ground finch



sharp-beaked ground finch



cactus finch



large cactus finch



small tree finch



large tree finch?



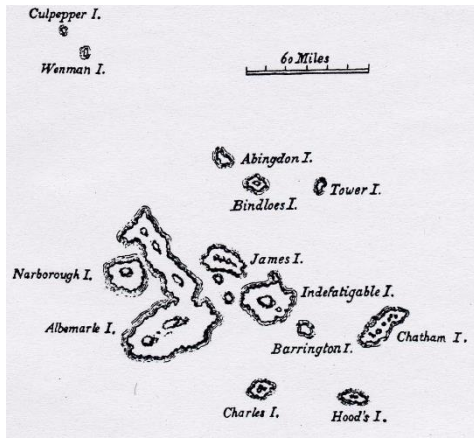
vegetarian finch



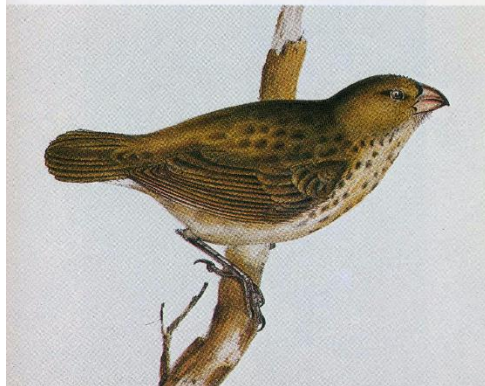
woodpecker finch



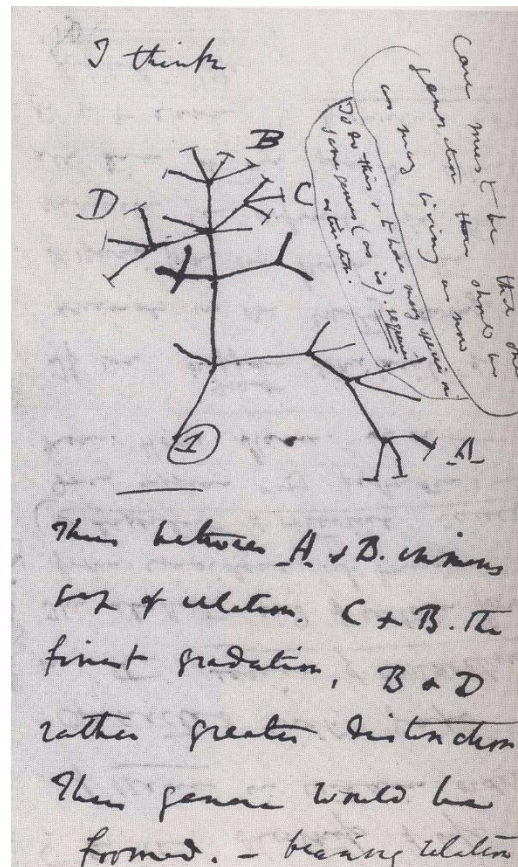
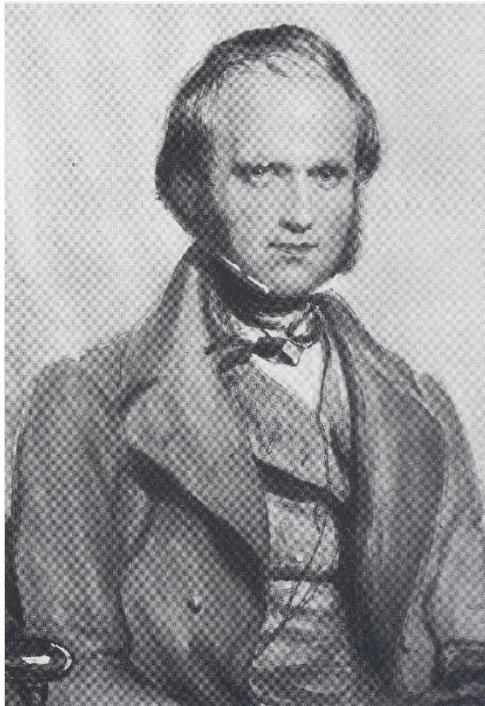
warbler finch



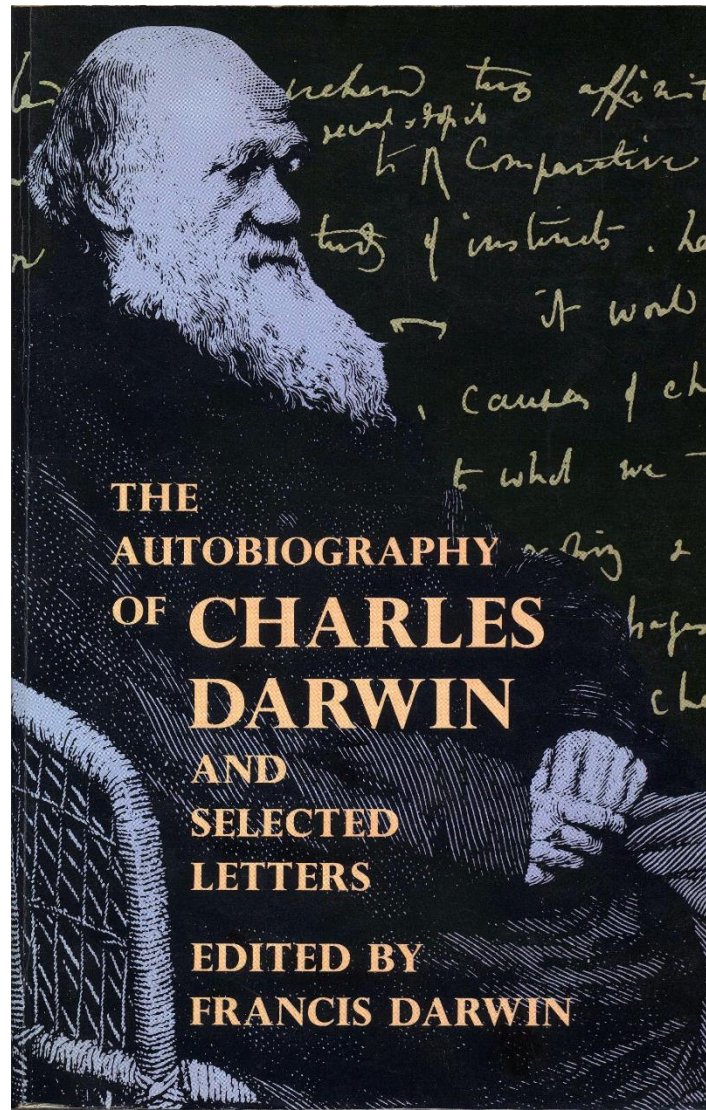
# Adaptive radiation



# Note by Darwin from the Zoological Society



# Darwin's autobiography: Where is Gould?



# Alfred Russel Wallace - forgotten hero



# Joseph D. Hooker



# Sir Charles Lyell



# The Linnean Society



*Burlington House, West Piccadilly Facade*  
watercolour by Janet Q. Hardman, 1990  
LINNEAN SOCIETY OF LONDON ©



Reading Room

# The joint publication

**On the Tendency of Species to form Varieties; and on the Perpetuation of Varieties and Species by Natural Means of Selection. By CHARLES DARWIN, Esq., F.R.S., F.L.S., & F.G.S., and ALFRED WALLACE, Esq. Communicated by Sir CHARLES LYELL, F.R.S., F.L.S., and J. D. HOOKER, Esq., M.D., V.P.R.S., F.L.S., &c.**

[Read July 1st, 1858.]

London, June 30th, 1858.

MY DEAR SIR,—The accompanying papers, which we have the honour of communicating to the Linnean Society, and which all relate to the same subject, viz. the Laws which affect the Production of Varieties, Races, and Species, contain the results of the investigations of two indefatigable naturalists, Mr. Charles Darwin and Mr. Alfred Wallace.

# Ethical issues

- Why did Darwin only ask his own friends?
- Why did Darwin put his faith in his two friends?
- Why did Darwin accept to write a paper **after** Wallace had already written his paper?
- Why was Darwin first author and Wallace second when the papers were read?
- And why were the papers communicated by Lyell and Hooker?

# Ethical issues

- Scientists are trained extensively to address issues about animal experimentation
- Why is there no training to deal with the ubiquitous ethical issues in human interactions?

# What is the point?

- We all have a duty to address ethical issues properly and adequately
- Scientists have a duty to train students in handling ethical issues properly and adequately
- Heads of departments are **ultimately responsible** for ethical issues being handled properly and adequately

# Authorships: Who and when?

- Authorship is the most frequent cause of ethical conflict
- Authorship is a right
- Authorship also implies duties and responsibilities
- Who are authors, in which order, and when?

# Authorship:

## Ecological Society of America rules

- Who got the idea? Co-author and first author
- Who did most of the work? Co-author
- Who did significant amounts of analyses? Co-author
- Who wrote that paper? Co-author
- Who contributed otherwise? Acknowledgments!

# Practical issues

- Students and technicians
  - Despite the rules
- Some journals (e. g. Evolution) require that co-authors can explain everything in the paper
  - A very serious issue
- The project leader paid for the costs
  - Does money rule? - Not a valid reason
- The head of department wants to be co-author
  - Not a valid reason
- The head of the group needs a publication
  - Not a valid reason

## **Ethical scenarios from real life (1): Grant proposals**

- X (junior) and Y (senior) write a proposal that is submitted, but not funded
- Five years later X submits exactly the same proposal, but Y is eliminated as applicant without being told
- The grant is funded
- Is this ethically appropriate behavior?
- What to do?

## **Ethical scenarios from real life (2): Research project**

- Y (senior) proposes a very specific research project to X (post-doc of Y), and both agree to proceed
- Z (junior) gets involved because he is working in research centre XX, where the data to test the hypothesis can be easily collected and analysed
- Y and X ask Z five times during the next three years about progress, but none is reported
- Five years later a post-doc working with Z, originally from research centre XX, publishes a paper in PNAS with X and Z as co-authors. Y is nowhere to be found in the paper
- Is this ethically appropriate behavior?
- What to do?

## **Ethical scenarios from real life (3): Conference presentation**

- X (junior) has a PhD student Z who develops very valuable genetic markers
- X presents the results of the project of Z at a Juan March workshop, without more than mentioning the name of Z together with 20 others
- Z finishes her thesis, but refuses to provide information about the markers to X
- Is this ethically appropriate behavior?
- What to do?

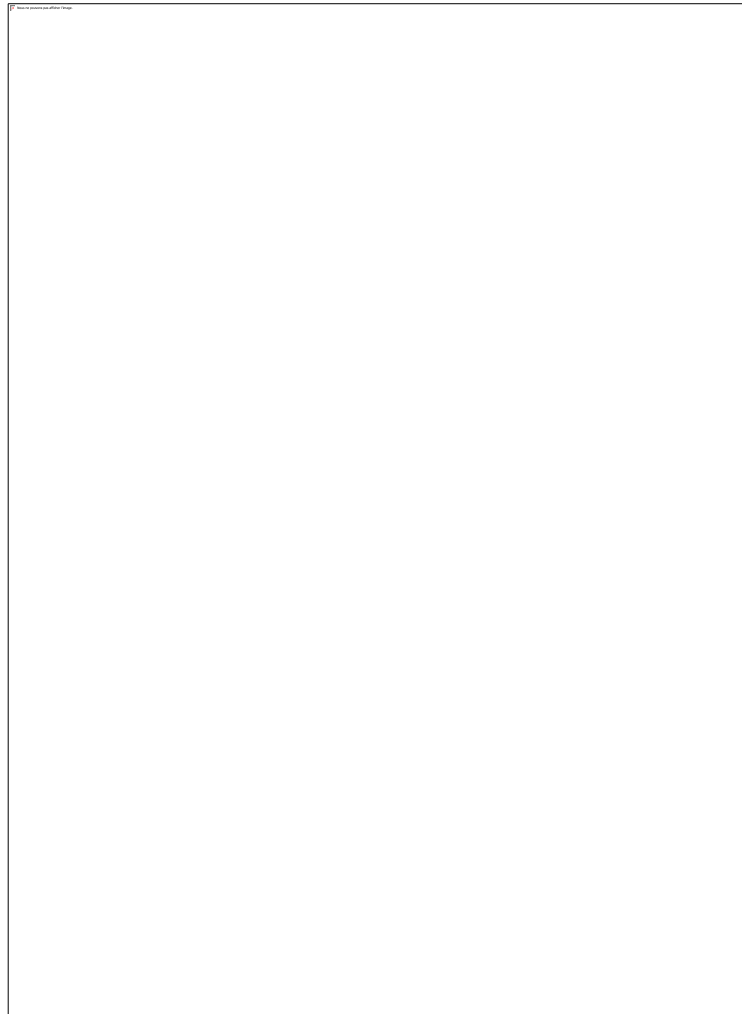
## **Ethical scenarios from real life (4): Job application**

- X has an idea for a CSIC position for Y
- X presents the idea at a seminar where Z, W, V and many others are present
- When applications for CSIC jobs are evaluated the next time, there are two applications by Y and Z that are almost identical
- Y gets the job
- Is this ethically appropriate behavior?
- What to do?

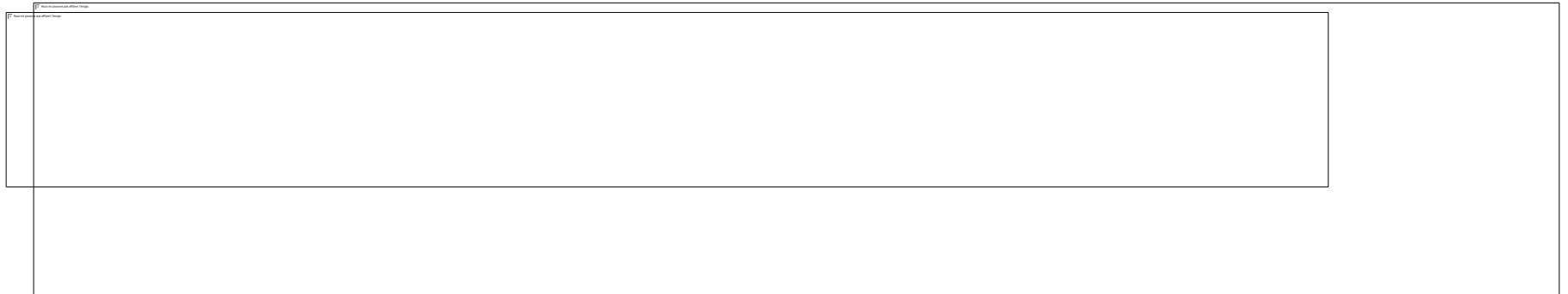
## **What to do if there is a potential ethical conflict?**

- Always bring out ethical issues in the open. Problems cannot be resolved if they remain hidden
- Ask the person(s) concerned
- If in doubt, ask at least two senior colleagues with more experience
- If still in doubt, ask the head of the lab
- Ask for a meeting with the parties of the conflict and two independent councils (i. e. do not do as Darwin did)
- Adopt and expand an ethical code of the department

# Code of ethics



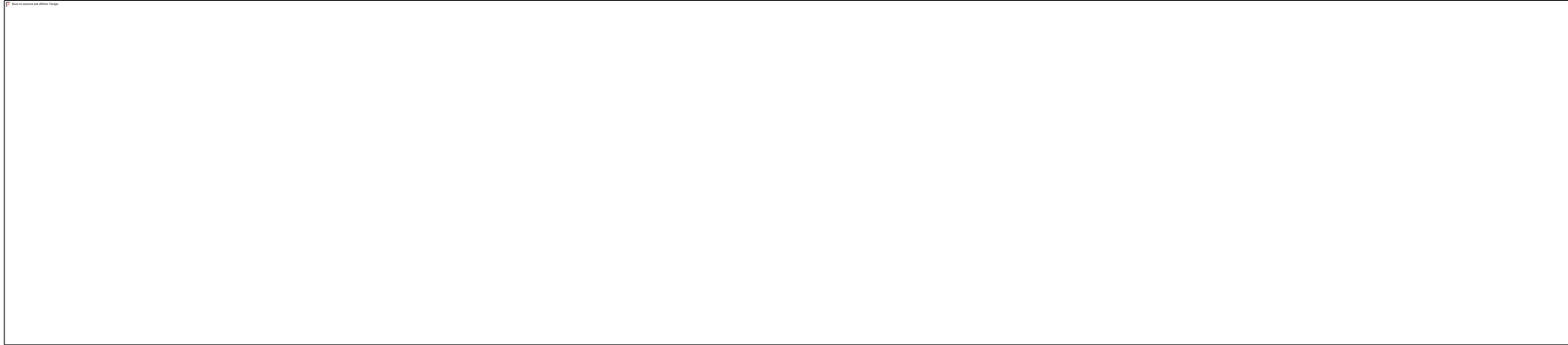
# Code of ethics (1)



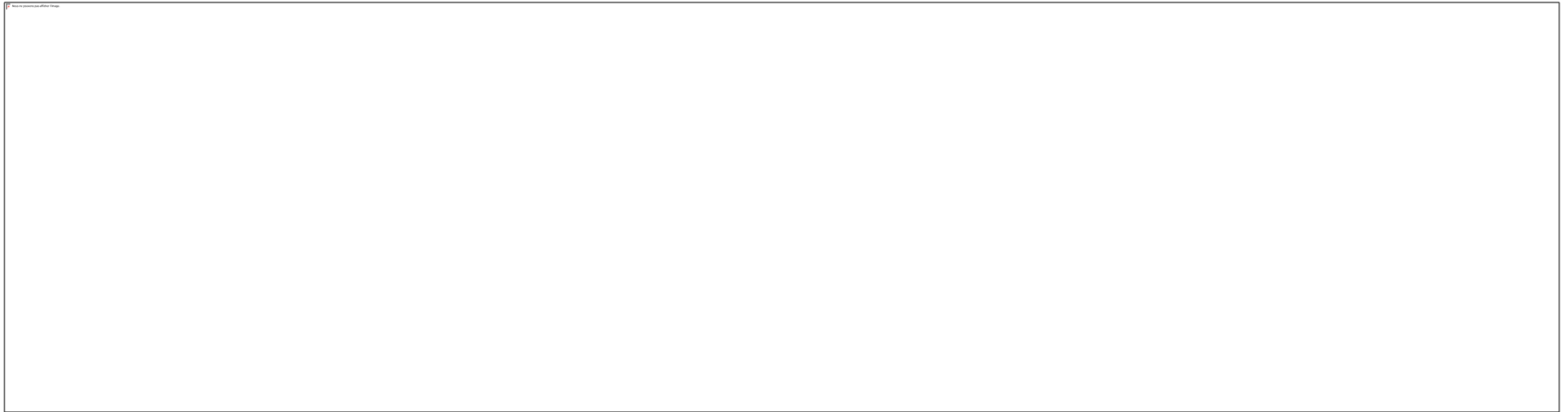
# Code of ethics (2)

# Code of ethics (3)

# Code of ethics (4)



# Code of ethics (5)



# Code of ethics (6)



# Code of ethics (7)

