

RELIGION AND THE QUESTION: WHAT HAPPENS, IF WE MEET SOMEBODY OUT THERE ?



Università dell'Insubria



**HUMANS IN OUTER SPACE
INTERDISCIPLINARY ODYSSEYS**



Vienna, 11 - 12 October 2007

Prof. PAOLO MUSSO

musso.pl@libero.it

A vibrant, multi-colored spiral galaxy with a bright yellow core, set against a starry black background. The galaxy's arms are filled with stars and dust, showing a mix of blue, purple, and red hues. The central core is a bright, glowing yellow. The background is a dense field of small, white stars.

MY ASSUMPTIONS

! NO INTERSTELLAR TRAVEL ... !

1

Neither direct contact with ET, nor with intelligent probes

2

Only contact via electromagnetic waves (radio, optical or anything else), just as in the "classic" SETI scenario

! ... ONLY INDIRECT CONTACT !

1

Neither dangers of star wars, diseases, and so on, nor trades, political issues, and so on are implied

2

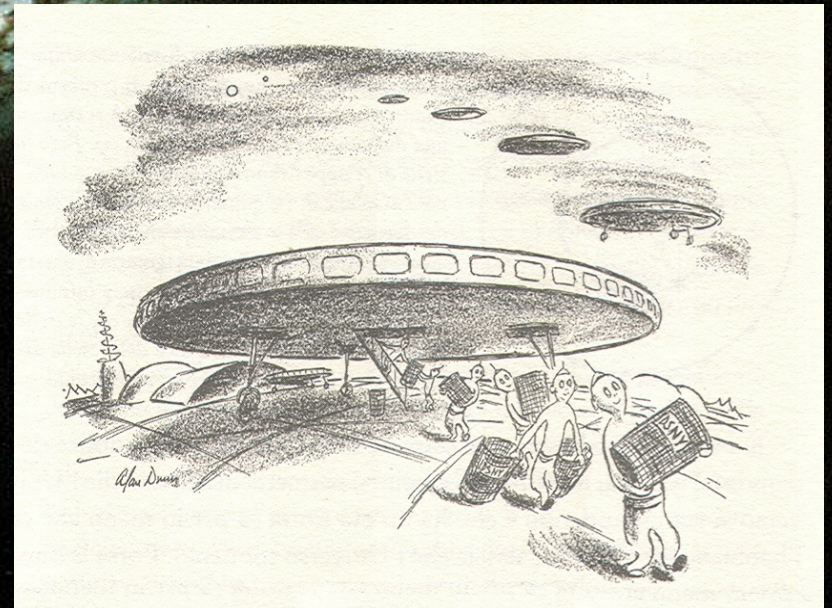
VERY difficult and SLOW communication (in the best case probably CENTURIES)

THE FERMI PARADOX

In 1950 many garbage baskets had disappeared mysteriously in New York ...

... and many flying saucers had been seen in the USA

So, this was the explanation, according to Alan Dunn (*The New Yorker*, 20-05-1950)



Where IS everybody?

During a lunch
Enrico Fermi
commented
this strip
with Edward
Teller, Emil
Konopinski
and Herbert
York, then
suddenly
asked ...



THE MEANING OF THE PARADOX

Since ETs (if they exist) are VERY likely MUCH older than us ...

... and since if interstellar travels are possible
it should be also possible to colonize the whole Galaxy
in a VERY short time (at the cosmic scale) ...

... then ETs should already be here,
but it seems that it is not the case

MAKING THE PARADOX EXPLICIT

a) ETs do exist

b) ETs are not here

c) Interstellar travels are possible

■ Each hypothesis can well be true,

but they cannot be *all* true at the same time

THEREFORE...

If we do NOT believe in UFOs...

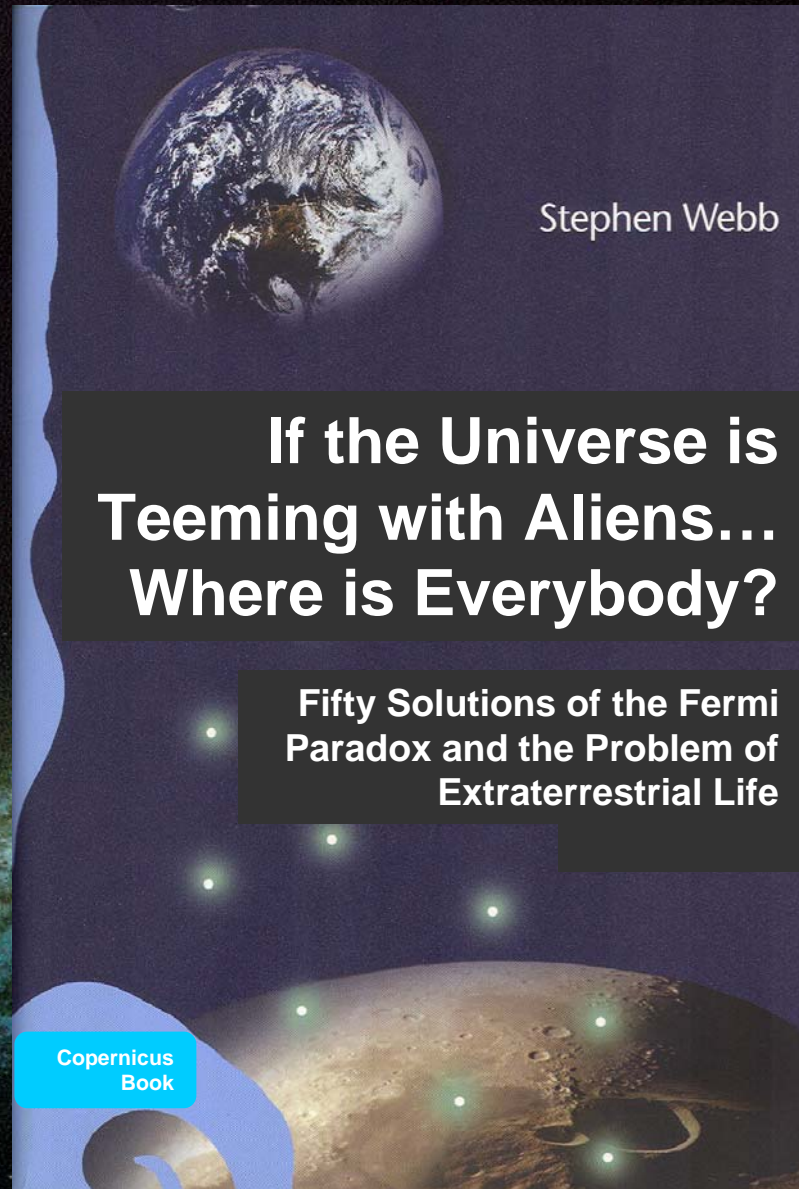
... then we have to conclude that:

1) either ETs do not exist ...

2) ... or interstellar travels are impossible



A very careful analysis of the Fermi Paradox was provided in 2002 by ...



... taking in considerations 50 different possible solutions, and showing that it is VERY difficult to avoid such a conclusion. Another analysis of the Paradox can be find in ...

WHAT THE FERMI PARADOX TELLS US ABOUT THE DANGERS OF ACTIVE SETI



PAOLO MUSSO

University of Insubria - Varese - Italia
UCSS - Lima - Perú



57th INTERNATIONAL ASTRONAUTICAL CONGRESS

**IAA 35th Symposium on The Search for Extra-Terrestrial Intelligence (SETI)
The Next Steps**

Valencia, Spain, 4 - 8 October 2006

musso.pl@libero.it

METHODOLOGICAL ASSUMPTIONS

After some general remarks, I'll discuss here ONLY the problems related with our Western religious tradition, that is the Christian one...

...and this for three good reasons:

1) it would not be correct to speak in name of other people

2) at present SETI is being done only in Western countries, which have a Christian background

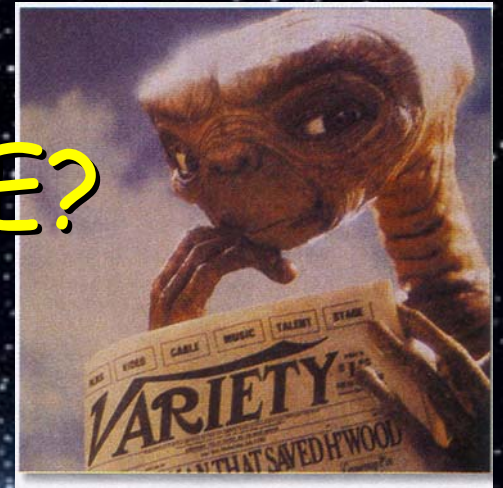
3) Christianity is usually thought of as the most anthropocentric religion



THE BIG ISSUE



ARE WE ALONE?



If we achieve
the answer...

NO!

Ok, great!
And then?





WHAT VALUES FOR ET ?

DIFFERENT, BUT INTELLIGIBLE

ETs may have VERY DIFFERENT VALUES, both ethical and religious, but nonetheless they SHOULD UNDERSTAND ours.
Indeed ...



To be intelligent beings MEANS to be moral beings,
since it NECESSARILY implies:

1

To be able to IMAGINE DIFFERENT POSSIBLE FUTURES

2

To be able to CHOOSE among them rationally

UNAVOIDABLY MORAL

But this is all we need to be also moral beings !

Indeed, a moral choice is nothing but a rational choice having consequences for the others

Thus, intelligent beings are also UNAVOIDABLY moral (or immoral) beings (immorality being still a moral attitude)

Morality is a **CONSTITUTIVE DIMENSION** of reason

UNAVOIDABLY METAPHYSICAL

ETs should be able to understand our religious values, too. Metaphysics, indeed (i.e. the rational discussion about God) is essentially based on:

1 The problem of the First Cause of the world

2 The problem of the ultimate ground of ethics

Thus, beings both scientific and moral (as ETs) are also UNAVOIDABLY metaphysical (or anti-metaphysical) beings (to be anti-metaphysical being still a metaphysical attitude)

Metaphysics is a CONSTITUTIVE DIMENSION of reason (also called "the Religious Sense")



HOWEVER PLEASE
DON'T FORGET THAT...

ADVANCEMENT \neq MORALITY

To be more **ADVANCED** does **NOT** imply to be more **MORAL**

1) Any modern dictatorship (as Nazi German, Soviet Union and so on) is much more advanced than any ancient society, but **SURELY** much **LESS** moral than most of them

2) Cooperation may arise also from non-ethical reasons, for example from an intelligent, well-planned egoism, or from the fear of a global catastrophe or self-destruction

ADVANCEMENT \neq INTELLIGENCE

To be more **ADVANCED** does **NOT** imply **EVEN** to be more **INTELLIGENT**

1) It would be simply an evolutionistic non-sense thinking that our intelligence could have increased significantly, not only from Galileo, but even from the Neolithic until now (not time enough)

2) Any child coming from a tribe still living in the Neolithic (as, say, Australian or Amazon aboriginals), if going to a modern school, has the same chance than every other to become a good scientist

3) Scientific progress is essentially a matter of **ACCUMULATION**:
"We are dwarfs on the shoulders of giants"

A wide-field astronomical image showing a dense field of stars. In the center, there is a prominent cluster of blue stars. Several bright red stars are scattered throughout the field, notably one in the upper left, one in the lower right, and a few others. The background is a dark, star-filled space.

SO...

N

ASE !



A DIALOGUE, NOT A TEACHING

ETs' moral and metaphysical beliefs
(and also their traditional or revealed religions, if any)
should be examined very carefully
BUT...

1) They should not be considered *a priori* "better" than ours

2) They should be submitted to a rational discussion, just as it happens (or *should* happen) on Earth every day with ours

3) We should feel free to send them OUR beliefs, too, without any "inferiority complex": they would be our partners in a dialogue, not our teachers!



**ETs AND
CHRISTIAN RELIGION**

SOME OVERVIEWS

Vakoch D. [2000]

Catholic View of Extraterrestrial Intelligence

in Tough A. (ed.), *When SETI Succeeds: The Impact of High-Information Contact*, Washington, pp. 165-174

Tanzella-Nitti G. [2002],

Extraterrestre, vita

in Strumia A., Tanzella-Nitti G. (eds.), *Dizionario interdisciplinare di scienza e fede*, Vatican City

Musso P., Ascheri V. [2002],

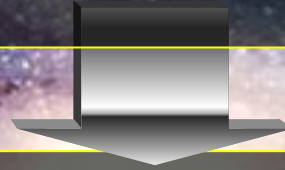
Kosmische Missionare?

in Wabbel T.D. (ed.), *S.E.T.I. - die Suche nach dem Ausserirdischen*, München, pp. 170-184

ABOUT THE PLURALITY OF WORLDS

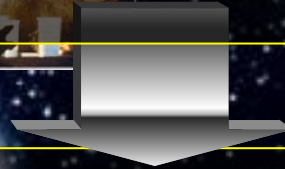


NEVER CONDEMNED !



Not even in the case of Giordano Bruno (who was condemned for other reasons, but NOT for this doctrine)

ON THE CONTRARY...



In 1277 Stephan Tempier, Archbishop of Paris, condemned as heretical **JUST THE OPPOSITE** proposition, maintained by Averroists:
"Quod Prima Causa non posset plura munda facere"

ABOUT ET'S EXISTENCE



1

There has been NO SYSTEMATICAL THEOLOGICAL DISCUSSIONS until today, and NO OFFICIAL STATEMENTS by the Catholic Church

2

MOST OF THEOLOGIANs who have discussed the topic are IN FAVOUR, but they are VERY FEW

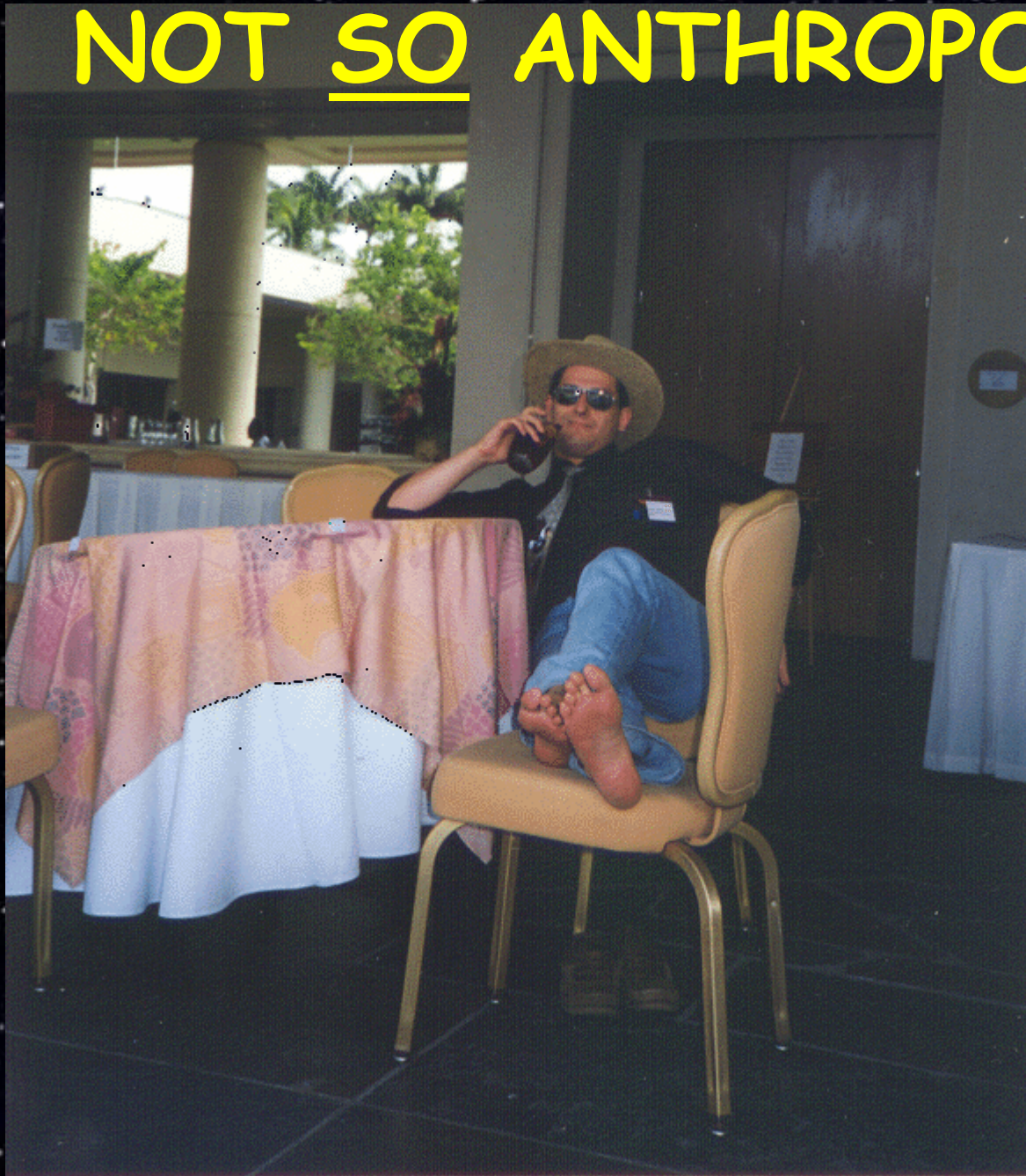
3

THREE POPES have talked, briefly and informally, about this, one against (Zaccaria I), TWO IN FAVOUR (Pio XII, Giovanni XXIII)

4

The most common position is to wait and see

NOT SO ANTHROPOCENTRIC !



HOW DRAMATIC?

ET's EXISTENCE is, in itself, FULLY COMPATIBLE with Christian faith, and, as a matter of fact, many Christian people already believe in ETs' existence

So, at least in the short period, NO DRAMATIC CHANGE (panic, revolutions, loss of authority) should be expected

A more difficult issue might be to establish the right place of ET in the HISTORY OF SALVATION, due to the unique role of Jesus Christ in it (Christocentrism, not anthropocentrism)

Without a convincing solution of this issue, problems may arise in the LONG period, also because ...

300 m ANTENNA
1 Hz BANDWIDTH

21 cm WAVELENGTH

TERRA

A vibrant, multi-colored spiral galaxy with a bright yellow core, set against a starry black background. The galaxy's arms are filled with stars and dust, showing a mix of blue, purple, and red hues. The central core is a bright, glowing yellow. The background is a dense field of small, white stars.

**A NOT-SO-OBVIOUS
IMPLICATION**

IF THE CONTACT IS ACHIEVED IN THE "NEXT" FUTURE ...

1

... that is in decades (not centuries or millennia)
with the next generation radiotelescopes (ATA, SKA) ...

2

Project Phoenix

... it will be in a range of tens or hundreds of light years

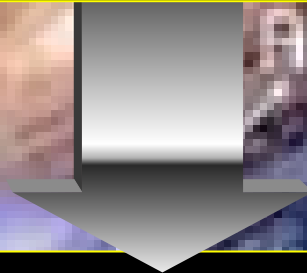
So, not only we would not be alone...



...but intelligent life would be
VERY common

IN FACT...

... if intelligent life were a very rare phenomenon, then ...



... the probability of two so close, independent origins would be practically zero

Allen Telescope Array

Project

A PROBLEM AND SOME SOLUTIONS

This would mean that VERY likely there are many civilizations that will never hear of Jesus Christ

1

A possible solution proposed by some theologians is that there Incarnation may occur many time (one for each civilization)

2

A second possible solution is that ETs could not be affected by the original sin, so they do not need to be saved

3

But it is also possible a most "conservative" solution

"THE KINGDOM IS LIKE A SEED..."


According to Christian religion, God's "method" seems to be that of choosing a small group of people, working like a "SEED"



Even though this "seed" must grow up also during the history, the full developed "tree" will never be visible in this world, but only in the other, at the end of the times

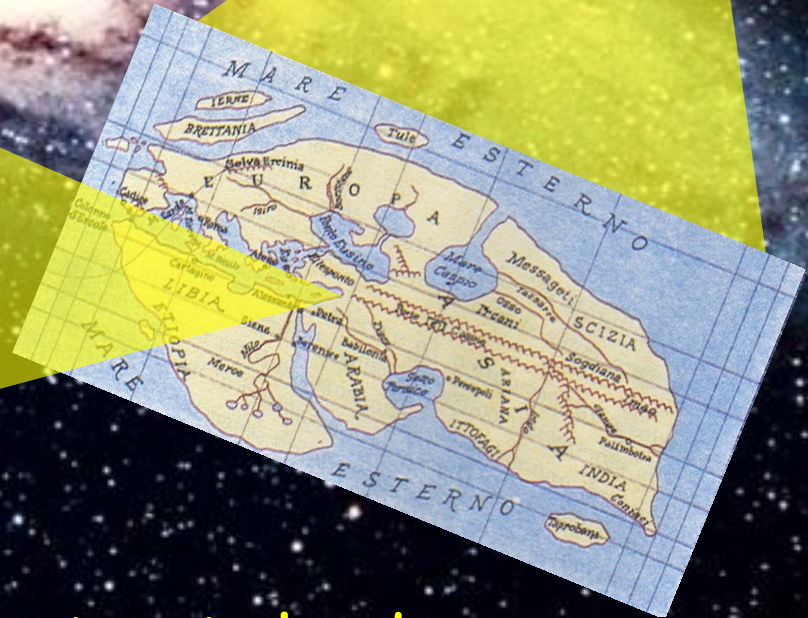
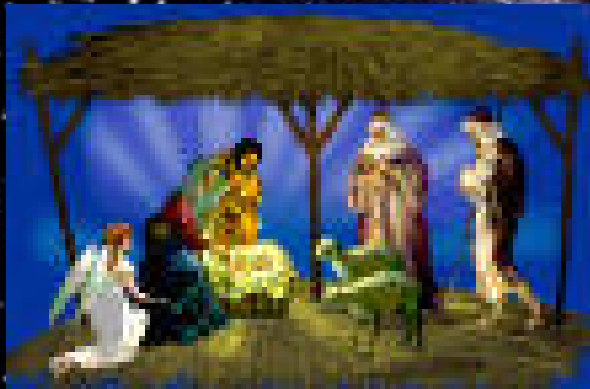


Indeed, even on Earth most of the intelligent beings who have lived here have never heard of Jesus, but nonetheless He died for all



So, the same could hold also for ET, and neither a direct contact nor even a communication of the Gospel may be necessary

AFTER ALL...



...Jesus was NOT born in the most central and powerful place of the Roman Galactic Empire!

AND TO FINISH LET ME SAY...

THANKS A LOT!

...to all of you to all of you to all of you to all of you to all of you
to all of you to all of you to all of you to all of you to all of you to
all of you to all of you to all of you to all of you to all of you to all
of you to all of you to all of you to all of you to all of you to all of
you to all of you to all of you to all of you to all of you to all of you
to all of you to all of you to all of you to all of you to all of you...