This chapter is the introduction to our new book, *The Scientist and the Church* (World Economic Association, 2015).

# The Scientist and the Church
## *Introduction*

**Shimshon Bichler and Jonathan Nitzan**
[*]

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Human society, one may argue, is propelled by a dynamic clash of two primordial drives: creativity and power. The urge to invent confronts the impulse to conserve, the desire to change contests the quest to impose, the will to transcend conflicts with the impetus to restrict, harness and

sabotage. It seems that the ever-present need to create something new always stands against the itch to redistribute and appropriate.

Arthur Koestler described this clash, somewhat romantically, in his masterful history of cosmology, *The Sleepwalkers* (1959). His lone scientists grope in the dark. They search for

cues,
hints
and
leads.
They
often
stumble,
falling
flat
on
their
faces.
Rarely
do
they
know
exactly
what
they
are
looking
for.
But
they
go
on.
And
then,
suddenly,
comes
a
revelation.
The
scientist
sees
a
spark.
Many
a
time
the
spark
fizzles
out
and
dies.
But
sometimes

it
persists
long
enough
to
ignite
a
fire.
Novel
ideas,
syllogisms,
explanations,
equations
and
theories
start
to
emerge
in
quick
succession.
Before
long,
a
whirlwind
of
light
builds
up
in
the
middle
of
the
darkness.
The
whirlwind
twists
and
turns,
drawing
in
other
scientists,
generating
more
light,
more

ideas,
more
findings.
In
rare
cases,
it
even
gives
rise
to
a
totally
new
cosmology.

But
this
creativity
is
never
easy
to
manifest.
Wherever
they
go,
the
scientists
find
themselves
faced
with
a
monolithic
wall
of
resistance.
Confronting
them
are
the
dominant
power
institutions
of
society,
the

opaque
and
seemingly
impenetrable
complex
of
church,
academy,
state,
army
and
business
organizations
that
control
and
leverage
the
prevailing
beliefs,
ideologies,
dogmas
and
paradigms.
Occasionally,
a
single
scientist
manages
to
break
through
the
wall.
Kepler,
Galileo,
Newton,
Maxwell
and
Einstein,
among
others,
were
immortalized
for
doing
so.
But

of
those
who
try,
the
vast
majority
fail
and
sink
into
oblivion.
The
odds
are
overwhelmingly
against
them.
To
challenge
power
with
creativity
is
to
risk
your
life,
job,
reputation,
family
and
future
–
as
the
heroic
Cecilia
Paine,
the
first
to
discover
what
stars
are
made
of,

was
to
learn
the
hard
way
(see
Chapter
11).
Those
who
contest
the
dogma
–
like
the
poet
in
George
Orwell's
*Keep
the
Aspidistra
Flying*
(1936)
–
face
ridicule,
poverty,
life
in
the
shadows.
No
wonder
most
people
end
up
taking
the
safe
route
of
consent,
moving
obediently

with
the
herd.

**The
First
Mode
of
Power**

Many
of
those
who
examined
the
clash
between
creativity
and
power
–
from
Socrates
and
Plato
to
Freud
and
Marcuse
–
searched
for
universal
drives
and
inhibitions,
for
the
eternal
underpinnings
of
Eros
and
Civilization.
But
while
the

drives
and
inhibitions
may
be
universal,
their
social
manifestations
are
often
unique.
The
clash
of
creativity
and
power
is
the
engine
of
the
social
*creorder*
–
the
ongoing
creation
of
order
that
propels
and
transforms
all
historical
societies.
And
so,
whatever
its
sources,
this
clash
is
always
specific

to
the
mode
of
power
in
which
it
is
manifested.
[1]

The
first
mode
of
power
we
know
of
was
born
in
Mesopotamia,
about
six
thousand
years
ago.
Although
the
conflict
between
the
inventive
creators
and
their
imposing
rulers
was
rarely
if
ever
recorded,
the
*effects*
of

this conflict are amply documented. [2] The archaeological remnants and written tablets attest the invention of organized agriculture and planned irrigation – as well as the subjugation of large populations to a rigid palatial regime of canal digging and maintenance, field work and animal husbandry. We have evidence

of
innovative
construction,
including
the
invention
of
the
‘building
block’
(mud
brick)
and
advanced
architecture
–
as
well
as
the
extensive
use
of
hard
labour
to
erect
religious/statist
monuments
for
the
glory
of
the
gods-
rulers.
And
this
record
sits
well
with
the
Mesopotamian
myth-
of-
creation-
read-

power-
relations.
According
to
this
myth,
the
gods
had
invented
human
beings
simply
so
that
they
. . .
could
work
for
them:
‘Let
him
[man]
be
burdened
with
the
toil
of
the
gods,
that
they
may
freely
breathe’
(Frankfort
*et*
*al.*
1946:
185;
see
also
Kramer
1956:
Ch.
13)

The
Mesopotamians
are
believed
to
be
the
first
to
have
invented
writing
–
and
therefore
the
ability
to
articulate,
develop
and
record
complex
ideas,
art,
poetry
and
literature.
But
the
writing
they
invented
was
also
kept
deliberately
complicated,
accessible
only
to
a
narrow
stratum
of
priests,
palace

officials
and
clerks.
Along
with
Mesopotamia's
complicated
number
system,
writing
became
an
effective
means
of
exclusion,
a
way
to
organize
the
mode
of
power,
control
the
dogma
and
hold
the
underlying
population
in
line.

**Democratic Writing**

But
the
sabotage
exerted
by
a
mode
of
power,
no

matter
how
totalizing,
is
never
complete.
Force
always
invites
and
creates
a
transformative
counterforce,
and
that
is
what
eventually
happened
with
writing.
In
due
course,
the
elites'
stranglehold
over
this
complex
symbolic
technology
was
loosened.
The
key
breakthrough
might
have
occurred
in
the
fifteenth
or
fourteenth
century
BCE,

in the Egyptian turquoise mines of Serabit el-Khadim in the Sinai Peninsula. The walls of these mines reveal an-easy-to-read alphabetic script, the first radical departure from the complicated Egyptian hieroglyphs. [3]

We don't know who invented this ingenious script. Perhaps it was the

western-
Semitic
Apiru,
or
Amurru,
who
worked
as
zapping
labourers
in
the
imperial
mines.
Being
semi-
nomadic
and
relatively
independent,
they
probably
weren't
pulped
into
total
submission
by
the
Egyptian
Sun-
God
king.
And
maybe,
possibly
as
a
consequence
of
disputes
with
their
employer,
they
invented
a
new

form
of
writing
to
contest
and
resist
their
harsh
treatment.
Whatever
their
identity
and
reasons,
though,
the
alphabet
they
created
set
off
a
revolution:
it
started
the
democratization
of
knowledge,
an
open-
ended
process
that
seven
centuries
later
would
give
rise
to
science
and
philosophy.

**Autonomy**

Science and philosophy were born in the Greek poleis of the fifth century BC. [4] Historically, it was a giant quantum leap. In the midst of an oriental world, controlled by despotism, tyranny and god-kings, there emerged, suddenly and without warning, a new culture based on democracy,

science and philosophy. The roots of this transformation remain heatedly debated, partly because the character of the Greek polis was so special, if not entirely unique. For the first time in history, man no longer slaved for the gods and their earthly representatives. [5] From a lowly, subservient

creature,
he
became
the
centre
of
the
universe.
The
human
being
was
now
recognized
as
the
creator
of
the
*nomos*
(society),
while
the
human
mind
was
made
the
final
interpreter
of
the
*physis*
(nature).
Gone
was
the
heteronomous
rule
of
kings
and
priests.
Instead,
there
arose
an
autonomous

society,
conceived,
created
and
regulated
by
its
own
members.
And
with
open
autonomy
came
explosive
creativity.
The
art
and
science
of
philosophy,
literature,
dialogue,
mathematics,
logic,
theatre
and
history
all
flourished.
This
burst
of
creativity
owed
much
to
the
elimination
of
external
power
and
arbitrary
coercion:
it
was

driven
not
by
force
and
adulation,
but
by
idle
curiosity
and
the
quest
for
truth;
it
throve
not
on
obedience
and
dogma,
but
on
scepticism
and
self-
criticism;
and
it
was
fuelled
not
by
conflict
and
violence,
but
by
the
love
of
life
and
the
admiration
of
beauty.

In an autonomous society, where humans are neither subservient to nor in command of others, their agreement is predicated on common logic, broad dialogue and inclusive planning. And that is what happened in some of the poleis. Autonomy went hand in hand with the Pythagorean invention of

the
*proof*
–
the
need
to
*convince*
your
equals
using
logical,
agreed-
upon
principles.
And
there
was
more
than
pure
logic
here.
The
concept
of
proof
was
complemented
and
greatly
enriched
by
the
recognition
of
human
limitations
and
the
desire
to
transcend
them
–
hence
the
critical
bent

of
historical
narrative,
the
bitterness
of
tragedy
and
the
ridicule
of
comedy.
In
this
way,
the
democratic
quest
for
pure
knowledge
both
implied
and
depended
on
the
desire
to
understand
the
beauty
of
the
universe
and
the
urge
to
create
a
good
society.
This
triangular
model
of
philosophy-

science-democracy is perhaps the greatest societal invention ever.

**Science and Church**

The third historical leap in the conflict between creativity and power happened in the sixteenth century, with the emergence of capitalism. [6] This emergence was accompanied by a deep political-scientific revolution. Cities and

towns
were
growing
in
leaps
and
bounds,
the
printing
press
was
spewing
out
new
books,
pamphlets
and
scientific
articles,
and
more
and
more
people
were
becoming
mesmerized
by
novelty
and
hooked
on
change.

The
crown
achievement
of
this
revolution
was
the
mechanical
worldview
spearheaded
by
Kepler,
Galileo

and Newton. The introduction of this new cosmology exposed the inherent conflict between scientific *re-*search and static dogma. The new scientists still feared the authorities and were keen to avoid the wrath of the Holy Inquisition, and Galileo, whose open-ended explorations challenged the Church's Aristotelian dogma,

was
nearly
executed
by
Pope
Urban
VIII.
But
the
fault
line
of
the
*ancien*
*régime*
was
now
laid
bare
for
all
to
see.
The
power
of
the
monarchy,
nobility
and
Church
was
increasingly
viewed
as
dark
and
backward.
And
even
if
the
people
of
that
epoch
hadn't
quite

realized it, we can say that, for the first time in history, the good of society was explicitly associated with forward-looking novelty and creativity, progressive education and political freedom.

**The Science of Society**

The mechanical-bourgeois revolution gave rise to the first science of society

–
the
study
of
‘political
economy’.
Adam
Smith
and
David
Ricardo,
the
key
founders
of
this
new
discipline,
were
social
scientists:
they
searched
for
the
natural
laws
of
society;
they
looked
for
the
rules
that
governed
production,
consumption
and
exchange;
and
they
developed
the
first
theories
of
prices.

Their
science
was
deeply
revolutionary.
It
contested
the
old
regime
and
offered
a
totally
new
framework
to
understand
and
benefit
from
the
new.
But
their
innovative
achievements
were
soon
arrested
and
eclipsed
by
the
rising
academic
church
of
neoclassical
political
economy,
later
to
be
renamed
and
scientifically
suffixed

as
‘econom*ics*’.

Headed
by
Stanley
Jevons,
Leon
Walras,
Carl
Menger,
Alfred
Marshall
and
John
Bates
Clark,
the
neoclassicists
abandoned
the
open-
ended
intellectual
inquiry
of
their
classical
predecessors,
replacing
it
with
a
narrow,
rigid
dogma.
By
the
late
nineteenth
century,
capitalism
was
clearly
victorious,
and
the
role

of
bourgeois
theorists
was
no
longer
to
attack,
but
defend.
There
was
a
pressing
need
for
a
new,
secular
religion,
and
the
neoclassical
economists
rose
to
the
occasion.
They
articulated
a
new
faith
and
nominated
themselves
its
principal
gatekeepers.
To
ward
off
outsiders,
they
erected
insurmountable
disciplinary
walls

and
replaced
plain
text
with
indecipherable
mathematical
scriptures.
To
extinguish
free
thinking,
they
imposed
impossible-
to-
believe
assumptions.
To
eliminate
open
dialogue,
they
carefully
restricted
the
questions
economists
were
allowed
to
ask.
And
they
triumphed.

A
century
later,
their
neoclassical
faith
reigns
supreme.
Having
more
followers
than

all
of
the
world's
religions
combined,
their
dogma
dominates
the
mindset
of
rulers
and
subjects
alike.
It
justifies
and
regulates
the
capitalist
mode
of
power.
And
faced
with
no
real
competitors,
it
seems
almost
unassailable.
But
then,
that
is
often
what
hubris
looks
like
when
a
regime
approaches

its
peak
power,
just
a
short
moment
before
it
falters.

**Marxism**

Whereas
the
neoclassicists
sought
to
defend
the
victory
of
capitalism,
Marx
and
his
followers
tried
to
annul
it.
A
man
of
his
time,
Marx
was
deeply
influenced
by
the
scientific-
mechanical
revolution.
But
whereas
the

bourgeois theorists of society used their science to tie humanity to the machine, Marx's goal was to liberate it from it. He wanted to develop an alternative, *universal* social science, an emancipatory, rational framework for a new social order born out of the contradictions of the old.

Eventually, though, Marxism went into retreat. Its liberatory impulse was fatally wounded by the totalitarian record of Soviet regimes, its autonomy was compromised by frequent realignments with Communist Party shifts and changing political fashions and its scientific vitality was drained by attempts to reconcile Marx's scriptures with the

rapidly changing reality.

The consequences of these developments were dire. Like bourgeois political economy, Marxism also disintegrated. But whereas bourgeois political economists eagerly endorsed and hastened this disintegration by creating mutually exclusive ‘social sciences’, Marxists tried to hold onto the former universality of Marx’s theory – even

when
that
universality
was
no
longer
there.
Since
the
late
nineteenth
century,
Marxism
was
gradually
fractured
into
many
different
and
often
contradictory
sub-
disciplines.
Its
original
totality
gave
rise
to
irreconcilable
diversity,
and
its
scientific
research
programme
gradually
succumbed
to
increasingly
rigid
dogmas
and
anti-
scientific,
postist
sentiments.

By the second half of the twentieth century, it no longer offered a cohesive theoretical and empirical account of capitalism, let alone a convincing alternative to it.

**Value Theory**

Perhaps the most important – and paradoxically least recognized – consequence of these developments is the collapse

of
value
theory.
Capitalism
is
a
commodified
social
order.
Everything
in
this
order
–
including
the
central
process
of
capital
accumulation
–
is
related
to
everything
else
through
prices.
This
is
why
the
classical
cosmology
of
capitalism
–
both
bourgeois
or
Marxist
–
started
from
and
was
based

on
a
theory
of
value.

But
that
is
no
longer
the
case:
nowadays,
there
is
*no*
*viable*
*theory*
*of*
*value*.

Marx's
labour
theory
of
value
rests
on
the
elementary
particle
of
socially
necessary
abstract
labour
time
–
but
that
particle,
while
perhaps
intuitively
appealing
in
Marx's

time
when
the
joule
was
first
invented,
can
no
longer
be
identified
and
quantified
in
today's
capitalism.
And
the
situation
is
even
worse
with
neoclassical
value
theory:
the
elementary
particle
of
this
theory
–
the
'util'
–
was
already
deemed
quantitatively
meaningless
by
the
theory's
own
founding
fathers,

and
no
neoclassicist
has
managed
to
prove
them
wrong
since.

The
net
result
is
that
neoclassical
and
Marxist
theories
now
hang
on
the
thread
of
cognitive
dissonance.
They
conceive
capitalism
as
a
quantitative
mode
of
consumption
and
production,
but
the
material/productive
units
on
which
their
theories
depend

–
the
util
and
socially
necessary
abstract
labour
time
–
are
entirely
fictitious.
They
think
of
capital
as
if
it
were
a
quantifiable
economic
entity,
but
the
way
in
which
they
‘measure’
this
supposedly
real
entity
is,
in
fact,
completely
arbitrary
and
forever
irrefutable.

**The Capitalist Mode**

**of Power**

Our own work, which started when we were students in the 1980s, seeks to break this impasse. It calls for a new cosmology of capitalism: one that sees capital not as a productive economic category but as capitalized power, and that conceives and researches capitalism

not as a mode of production and consumption but as a mode of power. The articles collected in this volume outline the general contours of our approach and flesh out some of our recent research. The first ten papers were written during the period of 2012-2015, while

the last one – *The Scientist and the Church* – was posted on our website in 2005. All are reproduced here in their original form.

The book is divided into five thematic sections. The first section (Chapters 1-3) sketches our notion of the capitalist mode of

power.
Chapter
1
takes
on
the
common
foundations
of
liberal
and
Marxist
political
economy.
It
dissects
the
conventional
dualities
of
politics/economics,
real/nominal,
productive/unproductive
and
base/superstructure;
it
examines
the
mechanical
assumptions
underlying
both
the
neoclassical
utilitarianism
of
supply,
demand
and
equilibrium
and
the
Marxist
materialism
of
exploitation
and
accumulation;

and
it
shows
how
the
rise
of
new
power
institutions,
organizations
and
processes
during
the
late
nineteenth
century
made
both
approaches
decreasingly
relevant
and
increasingly
dogmatic.

The
alternative,
we
argue,
is
to
bring
power
back
in:
to
conceive
power
not
as
an
extra-
economic
entity
that
distorts

or
supports
capital
from
the
‘outside’,
but
as
the
basic
relationship
that
*defines*
what
capital
is
in
the
first
place.
We
should
think
of
accumulation
not
as
the
amassment
of
utils
or
dead
labour,
but
as
the
capitalization
of
power
writ
large.
And
to
be
able
to
do

so,
we
need
a
new,
*power*
theory
of
value.
We
need
a
theory
that
is
based
not
on
production
as
such,
but
on
the
conflict
between
creativity
and
power;
that
focuses
not
on
capital
in
general,
but
on
dominant
capital
in
particular;
and
that
deals
not
with
absolute

accumulation,
but
with
differential
accumulation.
Such
a
theory,
we
believe,
can
help
us
better
understand
the
capitalist
mode
of
power
–
as
well
as
what
needs
to
be
done
in
order
to
undo
it.

Of
course,
in
order
to
develop
such
a
theory,
we
need
to
restart

from
scratch,
to
go
to
the
Cartesian
roots,
so
to
speak.
A
power
theory
of
value
requires
a
new
political
anthropology
of
capital
as
power;
it
needs
to
identify,
articulate
and
analyse
the
foundational
elements
of
the
capitalist
mode
of
power;
and
it
has
to
create
new
methods

to decode the logic, triumphs and crises of capitalized sabotage. The remainder of this book offers a sample of such endeavours.

We begin in Chapter 2 with the ‘Asymptotes of Power’. No power, including capitalist power, is ever compete. Since power is always exerted against opposition, it

is
inherently
bounded,
so
the
first
thing
we
need
to
examine
is
the
asymptotes,
or
limits,
that
this
opposition
creates.
Using
the
United
States
as
our
case
study,
the
chapter
offers
an
analytical
framework
for
such
an
inquiry.
By
progressively
decomposing
the
redistribution
of
U.S.
national
income
–

and
the
forces
that
this
redistribution
reflects
–
we
show
how
the
ongoing
systemic
crisis
has
been
tightly
linked
to
U.S.
capitalism
approaching
its
multiple
asymptotes
of
power.

Chapter
3
reflects
on
Robert
Harris'
financial
thriller,
*The*
*Fear*
*Index*.
The
popular
perception,
mirrored
in
the
novel,
is

of
a
system
running
amok.
According
to
this
conventional
creed,
finance
has
now
taken
over
production,
speculators
have
substituted
for
investors
and
automated
investment
algorithms
have
replaced
human
discretion.
It
is
as
if
the
unchecked
processes
of
financialization
have
totally
‘distorted’
capitalism.

Or
have
they?
From
the

viewpoint
of
capital
as
power,
there
has
been
no
distortion
at
all.
Capital
is
finance,
and
only
finance
–
or,
in
our
terminology,
capitalization.
And
capitalization
is
not
an
addendum
to
a
mode
of
production
and
consumption,
but
the
regulator
of
a
mode
of
power.
A
symbolic
representation

of
power,
finance-
read-
capitalization
measures
the
ability
of
owners
to
overcome
resistance
and
automate
society,
to
create
a
differential
megamachine
whose
*raison*
*d'être*
is
to
beat
the
average
and
exceed
the
normal
rate
of
return.
In
this
sense,
the
capitalized
rituals
of
‘finance’,
‘speculation’
and
‘automated
trading’

–
along
with
the
strategic
sabotage
they
engender
–
represent
not
a
muted
form
of
capitalism,
but
the
purest.

**Crisis**

The
second
section
of
the
book
(Chapters
4-
5)
deals
with
crisis.
In
Chapter
4,
we
disaggregate
the
processes
of
growth
and
stagnation.
Conventional
political
economy,

both
liberal
and
Marxist,
associates
accumulation
with
overall
economic
growth
and
prosperity
and
*de*cumulation
with
overall
stagnation,
unemployment
and
crisis.
From
the
viewpoint
of
capital
as
power,
though,
this
association
need
not
hold.
Capital
here
represents
not
the
accumulation
of
‘things’,
whether
counted
in
utils
or
labour
hours,

but
a
differential
measure
of
redistributional
power.
And
since
capitalized
power
operates
through
strategic
sabotage,
there
is
good
reason
to
expect
differential
accumulation
and
aggregate
prosperity
to
move
in
*opposite*
directions
–
which
is
exactly
what
has
happened
in
the
United
States
since
the
Second
World
War.

From the 1940s onwards, the distributive income share of capitalists has moved positively with the rate of unemployment, while the share of the top 1% has moved inversely with the growth of employment. No wonder capitalists have learned to stop worrying and love the crisis.

Chapter 5

extends the analysis of crisis to the global arena, examining the historical links between differential accumulation, the corporations and governments of the Weapondollar-Petrodollar Coalition and Middle East ‘energy conflicts’. According to the pundits, Middle East wars are hopelessly complex, often irrational and almost always unique. Regardless of

how
we
approach
them
–
whether
we
use
the
conventional
or
radical
viewpoints
of
international
relations,
the
idiosyncratic
perspectives
of
culture
and
religion,
or
the
economic
standpoint
of
resource
‘scarcity’
–
these
wars
are
difficult
to
understand
and
reason,
let
alone
generalize
about.
In
short,
they
are,
by

and large, *sui generis*.

But as we show in this chapter, these specificities and irrationalities could all be enfolded into the universal logic of modern capitalism – the differential accumulation of capital. Using our notion of capital as power, we find remarkably stable regularities linking the eruption

of Middle East energy conflicts, the differential performance of the Weapondollar-Petrodollar Coalition and global shifts in the nature of differential accumulation. Over the years, our research has shown these regularities to have remained more or less unaltered since the late 1960s, and that stability has allowed us

to predict – in writing and, in the first two conflicts, *ahead* of time – the three episodes of the Gulf Wars series.

***Re-*searching**

The third section of the book (Chapters 6-7) emphasizes the need to constantly re-examine our convictions and research our

findings. In Chapter 6, we zero in on a basic constant of Marxist political economy – the nexus between imperialism and financialism. For many Marxists, this nexus is central to understanding the transformation of capitalism – yet the historical role they ascribe to that nexus has changed dramatically

over time. The main change concerns the nature and direction of surplus and liquidity flows. In the early twentieth-century version of the nexus, the surplus was said to be exported to the colonies; in the neo-imperial theory of Monopoly Capital, it was domestically absorbed by the

core countries themselves; in the World Systems version, it was imported from the dependent periphery; and in the more recent thesis of hegemonic transition, it has taken the form of global liquidity that U.S.-led financialization sucks in from the rest of the world.

Now, using the

very
same
concepts
to
explain
very
different
and
often
opposing
processes
is
already
confusing
enough
–
particularly
when
nobody
knows
exactly
what
the
surplus
is,
let
alone
how
to
measure
it.
And
the
confusion
is
only
amplified
when
theorists
advance
arguments
for
which
they
furnish
little
or
no

evidence. This latter point is illustrated by empirically examining the hegemonic transition thesis. According to this thesis, the United States has been leading the global process of financialization – yet the facts show the exact opposite: based on its differential profitability, the U.S. financial sector appears to have

been
the
*lagger*,
not
the
leader
in
this
process!

Chapter
7
explores
the
role
of
crime
and
punishment
in
the
capitalist
mode
of
power.
The
starting
point
is
the
‘Rusche
thesis’:
the
argument,
made
by
George
Rusche
in
the
1930s,
that
the
ebb
and
flow
of
crime

and punishment are closely related to the tightening and loosening of the labour market. The thesis never gained many followers: mainstream criminologists have tended to ignore it, while their Marxist counterparts, although often sympathetic, have been unable to empirically substantiate it. But, as the chapter shows, this wholesale

rejection
may
very
well
be
the
result
of
a
simple
misreading.
Much
like
the
early
twentieth-
century
astrophysicists
who
misread
the
spectrometer
measurements
of
solar
radiation,
today's
criminologists
have
been
misreading
the
connection
between
unemployment
and
crime:
they
have
been
looking
at
the
right
data,
but
in
the

wrong
way.

A
proper
*re-*
reading
of
U.S.
statistics
shows
that
Rusche
was
right
on
the
mark:
over
the
past
century,
the
ups
and
downs
of
crime
and
punishment
have
been
positively
correlated
with
variations
in
unemployment,
exactly
as
he
predicted.
Moreover,
the
correlation
is
so
tight

that
there
is
almost
no
need
for
any
other
explanation!

But
the
nearly
perfect
fit
contains
two
glaring
exceptions.
While
the
thesis
holds
under
the
normal
circumstances
of
‘business
as
usual’,
it
breaks
down
in
periods
of
systemic
crisis:
during
the
1930s
and
the
2000s,
unemployment
increased

sharply,
but
crime
and
the
severity
of
punishment,
instead
of
rising,
dropped
perceptibly.
This
anomaly,
we
suggest,
might
be
related
to
the
nature
of
capitalist
power
and
resistance
to
that
power.
Under
normal
circumstances,
the
counterforce
to
the
capitalist
sabotage
of
unemployment
is
largely
personal
and
often
criminal,

hence the positive correlation; whereas during a systemic crisis the counterforce becomes more collective and political, hence the negative correlation.

**Interviews**

The fourth section of the book contains two wide-ranging interviews (Chapters 8-9). Nowadays, interviews are commonly seen as second-rate means of communication,

a
way
to
simplify
difficult
ideas
for
quick
consumption
by
the
impatient
masses.
Our
interviews
here,
though,
are
different:
they
are
long
and
thorough,
and
they
don't
cut
corners.

In
our
books
and
articles,
we
have
often
found
ourselves
evading
important
issues
whose
elaboration
would
have
taken

us
far
afield
and
off
topic.
Although
important,
somehow
these
issues
were
deemed
less
urgent
than
the
subject
we
ended
up
working
on.
And
so
they
remained
largely
unaddressed,
accumulating
dust
at
the
bottom
of
the
still-
to-
deal-
with
heap.

And
then
came
the
systemic
crisis.

The calamity opened up a Pandora's Box of unanswered – and often unasked – questions, and it offered us the opportunity to deal with many of those bottom-of-the heap issues. So when Tim Di Muzio and Piotr Dutkiewicz suggested that we conduct lengthy, open-ended interviews,

we
gladly
agreed.

The
interviews
deal
with
a
variety
of
related
topics
and
questions.
They
include,
among
issues,
the
notion
of
‘the
market’
and
how
it
relates
to
our
concept
of
capitalized
power;
the
question
of
whether
‘capitalism’
is
still
the
appropriate
term
to
describe
the
world

we
live
in;
the
fundamental
difference
between
capital
and
wealth;
the
crucial
significance
of
theory
and
research
for
political
action;
similarities
and
differences
between
Marxism
and
our
own
theory
of
capital
as
power;
the
role
of
labour
and
production
in
the
power
theory
of
value;
how
the
labour

theory of value misinforms the class struggle; and the historical link between productive and unproductive labour on the one hand and mass murder on the other. The list goes on.

**The Scientist and the Church**

The final section returns to the theme of the book (Chapters

10-
11).
It
begins
with
a
eulogy
to
a
scientist
who
enlightened
us,
the
late
Akiva
(Aki)
Orr.
In
Hebrew,
his
family
name,
‘Orr’
(אור)
,
means
‘light’,
and
we
would
like
to
suggest
that
this
is
not
a
mere
coincidence.
Aki
Orr
was
a
true
path-
breaker.

As co-founder of the first radical political movement in Israel, the Marxist-Trotskyite MATZPEN, he and his friends were the first to shed new light on the Palestinian-Israeli conflict. As a universal activist, he was associated with numerous revolutionary movements around the world. And as an

autonomous
intellectual,
he
befriended
and
was
close
to
many
innovative
scientists,
thinkers
and
artists.
His
books
and
activism
touched
the
lives
and
transformed
the
thinking
of
many.

Aki
charted
his
own
independent
path.
He
never
held
an
official
position;
he
never
drew
a
salary
from
any
academic

or
political
organization,
established
or
contrarian;
he
never
received
any
research
funding.
He
was
keen
on
understanding
the
world,
and
he
explored
it
not
in
order
to
gain
fame
or
earn
a
profit,
but
to
better
society.
As
a
universalist,
he
loathed
intellectual
property
rights
and
distributed
his

writing
for
free
and
without
any
legal
protection.
Many
of
his
path-
breaking
ideas
were
later
lifted,
nonchalantly,
by
academics
who,
as
it
turned
out,
had
‘known
it
all
along’.

Chapter
11,
titled
‘The
Scientist
and
the
Church’,
deals
with
this
type
of
appropriation.
The
concrete
focus

of
the
piece,
originally
written
in
2005,
is
the
UC
Berkeley
group
‘Retort’,
but
the
lesson
to
be
drawn
from
it
is
a
general
one.
Retort
here
represents
the
dark
forces
of
intellectual
sabotage,
the
anti-
scientific
stance
of
the
academic
church.
Dressed
as
a
radical,
‘Marxist’
collective

of professors-activists, the group plagiarized our broad theories, historical narratives and concrete arguments, along with our concepts, methods and research results. The uplifted material – massaged and calibrated to look and feel like novel-yet-legitimate Marxism (no less) – was neatly packed into a timely, politically-

correct book on the second ‘Gulf War’. The book was quickly printed by a politically-correct publisher, promoted by politically-correct journals and distributed to the unsuspecting, politically-correct laity. It looked like a real gem, certainly on the authors’ CVs.

Unlike the venturing scientist Akiva Orr,

Retort
was
steadfastly
guarding
the
academic
gates.
Whereas
Aki
was
interested
in
open-
ended
inquiry,
creativity
and
novelty,
Retort
was
keen
on
keeping
the
(Marxist)
faith
intact
and
the
dogma
unchallenged.
Aki
encouraged
research
in
directions
that
might
end
up
contradicting
his
own
–
indeed,
once
convinced,
he

didn’t
hesitate
to
abandon
the
dogmatic
aspects
of
Marxism
in
favour
of
Castoriadis’
approach.
By
contrast,
Retort
was
quick
to
disarm
the
innovators,
dispossessing
their
insights
as
if
they
were
theirs
all
along.
Unsurprisingly,
the
radical
UC
Berkeley
–
which,
incidentally,
invented
the
first
computerized
tool
to
detect

plagiarism
–
refused
to
expose
its
distinguished
professors,
while
those
who
published-
promoted
the
Retort
fraud
in
the
first
place
declined
to
print
our
contestations.
But,
then,
these
are
the
ways
of
the
Church.

And
that
must
be
a
sign
of
hope.
The
violence
of
the
academic

church
is
evidence
of
an
underlying
counterforce,
a
sign
that
creativity,
novelty
and
the
quest
for
truth
are
lurking
under
the
surface.
Wherever
we
find
people
such
as
Aki
and
his
friends,
we
find
light.
Despite
the
Retort
squads,
the
rigid
academic
dogmas
and
the
mind-
numbing
Facebooks,

there are always free-spirited creators, scientists and artists who look for a spark. Like any other mode of power, capitalism too creates its own negation – the quest for the light, the search for the ‘Orr’.

**Endnotes**

[*] Shimshon Bichler teaches political economy at colleges

and universities in Israel. Jonathan Nitzan teaches political economy at York University in Canada. All of their publications are available for free on *The Bichler & Nitzan Archives* (http://bnarchives.net).

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[1] The societal consequences of creativity and power were central to the works of Thorsten Veblen (1898, 1904, 1919, 1923) and Lewis Mumford (1934, 1961, 1967, 1970). On the concept of *creorder*, see Nitzan and Bichler (2009: 305-306 and Chapter 1 below).

[2] For classic accounts, see Jacobsen (1943), Frankfort *et al.* (1946), Frankfort (1948, 1951), Kramer (1956) and Evans (1958). For a comparative study of early civilizations, see Trigger (2003).

[3] See for example Giveon (1978), Naveh (1987) and Nitzan and Bichler (2009: 267). The precise dating of

this script remains debated. Recent discoveries date a similar script in Egypt's Western Desert to the nineteenth century BCE.

[4] For an enlightening analysis of this birth, see Castoriadis (1991).

[5] Although women and slaves were liberated only millennia later, the principles that emancipated them were

the same as those that liberated Greek men.

[6] The seeds of this leap are beautifully narrated in Umberto Eco's Middle-Age thriller, *The Name of the Rose* (1983).

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