

Short Elucidating Note 107: Using the conjunctural causality truth table to frame step by step the possible evolution routes for deep to deep Pareto optimality paradigm flips and flip-backs: The case of the deep capitalism market, horizontal evolution, vertical evolution, and the Thomas Kuhn's curse.

By

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Abstract

If we know the model structure of perfect paradigms we can create the conjunctural state under which each of them operates, creating in the process model structure and conjunctural state truth tables. Knowing both the model structure and the conjunctural state we can state the structure of deep paradigm flips and deep paradigm flip-backs taking place at the same level of analysis, using both model variability theory and conjunctural state variability theory. This paper is about framing the model and the conjunctural state flip and flip back for the deep capitalism/deep economy paradigm to expand that way pareto optimality thinking beyond traditional thinking in terms of flip and flip-back theory to capture the idea of horizontal deep capitalism/deep economy paradigm evolution, where the same level of externality responsibility is kept where the move is horizontal, but the nature of the pollution production problem associated with the way new deep markets work changes, and where the knowledge base of the previous paradigm is left behind during the flip or it is recaptured during the paradigm flip-back. Then how the deep capitalism/deep market paradigm evolves vertically is pointed out when as when under binding socio-environmental externality pressures it shifts upwards to save its core values leaving the previous knowledge base behind as it acquires higher externality responsibility levels.

Key words

Conjunctural state, Model structure, Deep socialism, Deep environmentalism, Deep capitalism, Deep economy, Yellow sustainability, True sustainability, deep socialism pareto optimality state, deep environmentalism market pareto optimality state, Deep capitalism Pareto optimality state, deep economy pareto optimality state, yellow sustainability market pareto optimality state, true sustainability market pareto optimality state

The model structure and the conjunctural state structure of each all markets when you have a system with social (A), economic (B), and environmental (C) components so that $M = A + B + C$

The truth table showing the paradigm structure and conjunctural state of each of the 8 paradigm possible in a system where there are social components(A), economic components (B) and environmental components (C) has been recently shared (Muñoz 2025a) as in similar fashion as shown in Table A below, where a capital letter means that component is present in dominant or active form (e.g. A = 1 = present in dominant form; and where a lower case letters means that the component is absent in dominant or active form (eg. a = 0 = absent in dominant form:

TABLE A PARADIGM AND CONJUNCTURAL STATE TRUTH TABLE

Paradigm structure	Conjunctural state
M1 = abc = the fully unsustainable market	= (0,0,0)
M2 = Abc = the deep socialism market	= (1,0,0)
M3 = aBc = The deep economy market	= (0,1,0)
M4 = abC = The deep environmental market	= (0,0,1)
M5 = ABc = The red market	= (1,1,0)
M6 = aBC = The green market	= (0,1,1)
M7 = AbC = The socio-environmental market	= (1,0,1)

$$M8 = ABC = \text{Yellow sustainability market} = (1,1,1)$$

The possible flip and flip back routes for the deep capitalism/deep economy evolution horizontally

All deep markets have two externality problems, the deep socialism market has an eco-economic externality problem (bc), the deep environmental market has a socio-economic externality problem (ab), and deep capitalism/deep economy market has a socio-environmental externality problem (ac); and hence, all of them have two different horizontal flip routes and two different horizontal flip back routes, and these paradigm flip and flip back routes linked to losing the core dominant paradigm value of responsibility in the flip process or flip-back process are highlighted with yellow in Table B below:

TABLE B PARADIGM AND CONJUNTURAL STATE TRUTH TABLE

Paradigm structure	Conjunctural state
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$$M1 = abc = \text{the fully unsustainable market} = (0,0,0)$$

$$M2 = Abc = \text{the deep socialism market} = (1,0,0)$$

$$M3 = aBc = \text{The deep economy market} = (0,1,0)$$

$$M4 = abC = \text{The deep environmental market} = (0,0,1)$$

$$M5 = ABc = \text{The red market} = (1,1,0)$$

$$M6 = aBC = \text{The green market} = (0,1,1)$$

M7 = AbC = The socio-environmental market = (1,0,1)

M8 = ABC = Yellow sustainability market = (1,1,1)

Notice that the yellow sustainability paradigm M8 is highlighted with color green in Table B above to be used later to point out that as since all deep markets are delinked from yellow sustainability thinking, including the deep socialism paradigm; and therefore, in the very long term we should expect to see them tending towards system collapse as the externality production problem tends towards the accumulation of worsening negative conditions.

Expanding Pareto optimality thinking outside the traditional market box through deep paradigm flips and flip-back theory

We can see based on the discussion above that if we know the model structure of perfect paradigms we can create the conjunctural state under which each of them operates, creating in the process model structure and conjunctural state truth tables. Knowing both the model structure and the conjunctural state deep paradigms such as the deep socialism paradigm, the deep environmentalism paradigm and the deep capitalism/deep economy paradigm we can state the structure of deep paradigm flips and deep paradigm flip-backs taking place at the same level of analysis or horizontally given a paradigm to start with, using both model component variability theory as flips and flip-backs and conjunctural state variability theory as conjunctural state flips and conjunctural state flip-backs, going this way beyond traditional pareto optimality thinking. This paper is about framing the model and the conjunctural state flip and flip back for the deep capitalism/deep economy paradigm to expand that way pareto optimality thinking beyond traditional thinking in terms of flip and flip-back theory to capture the idea of horizontal deep capitalism/deep economy paradigm evolution, where the same level of externality responsibility is kept, but the nature of the pollution production problem associated with the way new deep markets work changes, and where the knowledge base and core values of the previous paradigm are left behind during the flip or they are recaptured during the paradigm flip-back.

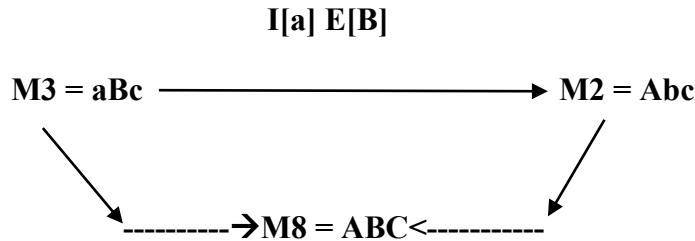
The case of deep capitalism/deep economy flips and flip-backs in terms of model component variability

a) The deep capitalism/deep economy model flip route to other deep paradigms

i) The case of the flipping towards the deep socialism paradigm under yellow sustainability gaps

1) Analytically

The idea of the flip from deep capitalism/deep economy M3 to deep socialism M2 under yellow sustainability gaps can be stated analytically as follows:



The top part of the loop above indicates that when deep capitalism/deep economy (M3) internalizes social concerns I[a] and externalizes economic concerns E[B] it flips and takes the form of a deep socialism paradigm (M2). The lower part indicates that both the deep capitalism/deep economy model M3 and the deep socialism model M2 are delinked from yellow sustainability M8 as indicated by the broken arrow since both of them have yellow sustainability gaps: deep capitalism/deep economy has a socio-environmental yellow sustainability gaps (ac) and deep socialism has eco-economic yellow sustainability gap(bc).

2) Graphically

The flip from the deep capitalism/deep economy model M3 to the deep socialism model M2 can be summarized graphically as shown in Figure 1 below:

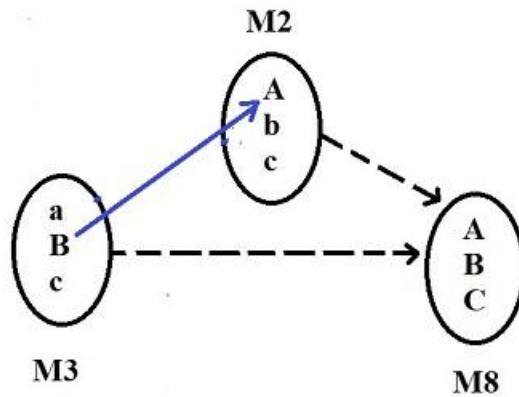


Figure 1 The flip from deep capitalism/deep economy (M3) to deep socialism (M2)

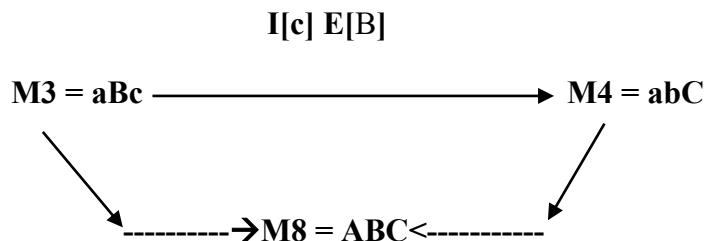
Figure 1 above shows a flip from an economy first model M3 to a society first model M2 as indicated by the blue arrow, a horizontal shift from an independent economic Pareto optimality world to an independent social Pareto optimality world as it is a move from a one

component dominant paradigm to another one component dominant paradigm. Figure 1 above also shows that both M3 and M2 are disconnected from yellow sustainability as indicated by the broken arrows from M3 and M2 to M8. Notice that when we flip from an economy first model to a society first model we are trading economic responsibility for social responsibility. The coming of red socialism a la Karl Marx (Marx and Engels 1848) saw countries trading economic responsibility for social responsibility making up the communist world until they traded back, social responsibility for economic responsibility in 1991 when red socialism fell, back into the deep capitalism world. It has been pointed out that just before red socialism fell China took steps to carefully trade social responsibility for economic responsibility slowly joining the capitalist world to maintain political/party stability and rule(Muñoz 2019a).

ii) The case of the flipping towards the deep environmentalism paradigm under yellow sustainability gaps

1) Analytically

The idea of the flip from deep capitalism/deep economy to deep environmentalism under yellow sustainability gaps can be summarized analytically as indicated below:



The top part of the loop above indicates that when deep capitalism (M3) internalizes environmental concerns I[c] and externalizes economic concerns E[B] it flips and takes the form of a deep environmentalism market (M4). The lower part indicates that both the deep capitalism/deep economy model M3 and the deep socialism model M4 are delinked from yellow sustainability M8 as indicated by the broken arrow since both of them have yellow sustainability gaps: deep capitalism/deep economy has socio-environmental yellow sustainability gaps (ac) and deep environmentalism has socio-economic yellow sustainability gap(ab).

2) Graphically

The flip from the deep capitalism/deep economy model M3 to the deep environmentalism model M4 can be summarized graphically as shown in Figure 2 below:

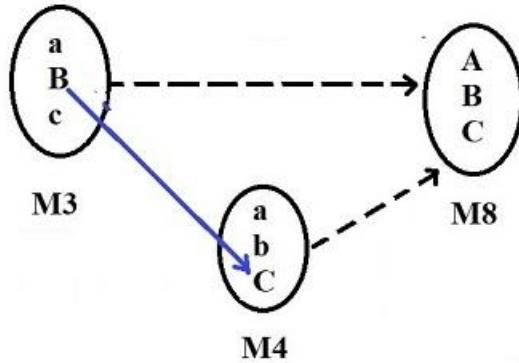


Figure 2 The flip from deep capitalism/deep economy (M3) to deep environmentalism (M4)

Figure 2 above highlights a flip from an economy first model M3 to an environment first model M as indicated by the blue arrow, a horizontal shift from an independent economic Pareto optimality world to an independent environmental Pareto optimality world as it is a move from a one component dominant paradigm to another one component dominant paradigm. Figure 2 above also indicates that both M3 and M4 are disconnected from yellow sustainability as indicated by the broken arrows from M3 and M4 to M8.

3) The unsustainability of the flips to other deep paradigms

If we place the deep capitalism/deep economy market and its flips in the same plane we can appreciate their disconnection with yellow sustainability requirements as shown by the broken arrows from M3, M2 and M4 to M8 in Figure 3 below:

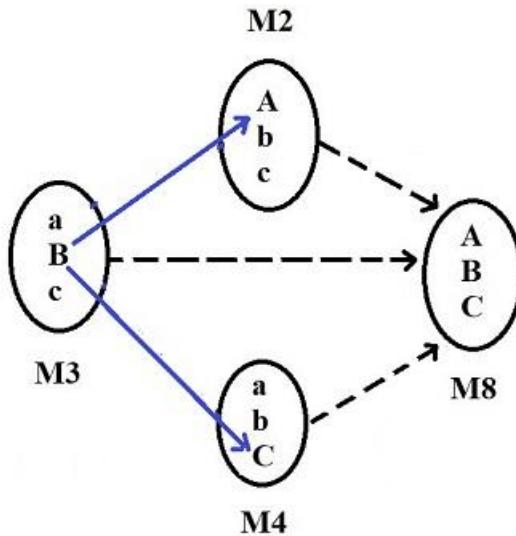


Figure 3 The unsustainability of deep capitalism/deep economy (M3) and its flips

Notice that Figure 3 above does not only shows that all deep capitalism/deep economy flips are inconsistent with yellow sustainability requirements (M8), but also the model of deep

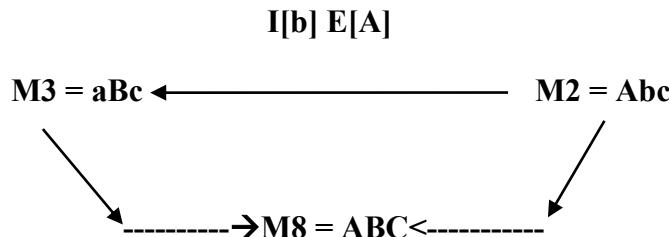
capitalism/deep economy is inconsistent with yellow sustainability as shown by the broken arrow from M3 to M8.

b) The deep capitalism/deep economy model flip-back routes from other deep paradigms

i) The case of the flip-back from the deep socialism paradigm

1) Analytically

The idea of the flip back from deep socialism to deep capitalism/deep economy under yellow sustainability gaps can be stated analytically as follows:



The top part of the loop above indicates that when deep socialism (M2) internalizes economic concerns I[b] and externalizes social concerns E[A] it flips and takes the form of a deep capitalism/deep economy (M3). The lower part indicates that both the deep capitalism model M3 and the deep socialism model M2 are delinked from yellow sustainability M8 as indicated by the broken arrow since both of them have yellow sustainability gaps: deep capitalism has socio-environmental yellow sustainability gaps (ac) and deep socialism has eco-economic yellow sustainability gap(bc).

2) Graphically

The flip back from deep socialism M2 to the deep capitalism model M3 can be summarized graphically as shown in Figure 4 below:

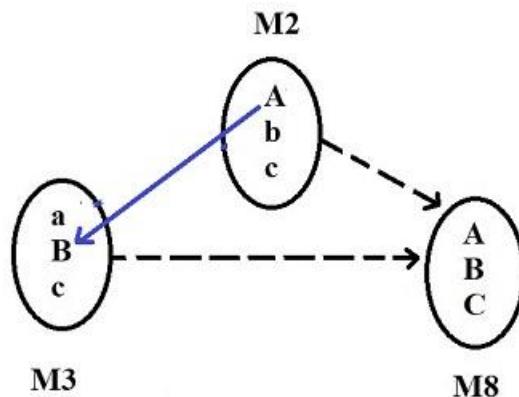


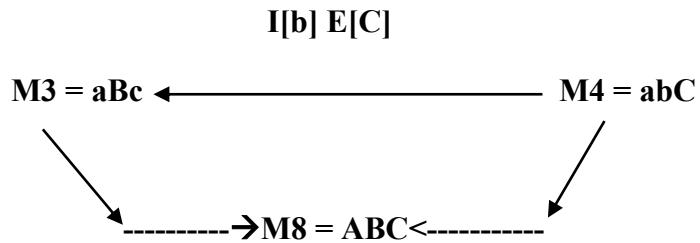
Figure 4 The flipback from deep socialism (M2) to deep capitalism/deep economy (M3)

Figure 4 above stresses a flip from a society first model M2 to an economy first model M3 as indicated by the blue arrow, a horizontal shift from an independent social Pareto optimality world to an independent economic Pareto optimality world as it is a move from a one component dominant paradigm to another one component dominant paradigm. Figure 4 above also indicates that both M2 and M3 are disconnected from yellow sustainability as indicated by the broken arrows from M3 and M2 to M8.

i) The case of the flip-back from the deep environmentalism paradigm

1) Analytically

The idea of the flip back from deep environmentalism to deep capitalism/deep economy under yellow sustainability gaps can be stated analytically as follows:



The top part of the loop above shows that when deep environmentalism (M4) internalizes economic concerns $I[b]$ and externalizes environmental concerns $E[C]$ it flips and takes the form of a deep capitalism/deep economy model (M3). The lower part indicates that both the deep capitalism model M3 and the deep environmentalism model M4 are unconnected from yellow sustainability M8 as indicated by the broken arrow since both of them have yellow sustainability gaps: deep capitalism has socio-environmental yellow sustainability gaps (ac) and deep environmentalism has socio-economic yellow sustainability gap(ab).

2) Graphically

The flip back from deep environmentalism M4 to the deep capitalism model M3 can be summarized graphically as shown in Figure 5 below:

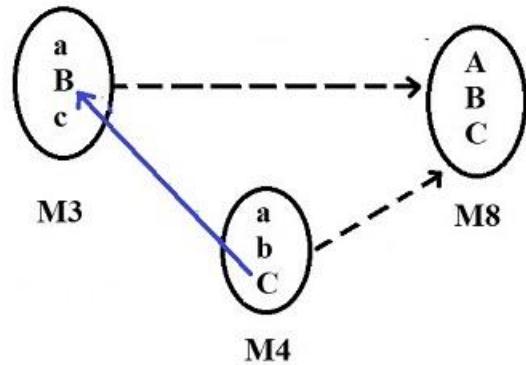


Figure 5 The flip back from deep environmentalism (M4) to deep capitalism/deep economy (M3)

Figure 5 above points out a flip from an environment first model M4 to an economy first model M3 as indicated by the blue arrow, a horizontal shift from an independent environmental Pareto optimality world to an independent economic Pareto optimality world as it is a move from a one component dominant paradigm to another one component dominant paradigm. Figure 5 also shows that both M3 and M4 are disconnected from yellow sustainability as indicated by the broken arrows from M3 and M4 to M8.

3) The unsustainability of deeps capitalism/deep economy flip-backs

If we place the deep capitalism/deep economy model and its flip-backs in the same plane we can appreciate their disconnection with yellow sustainability model requirements as shown by the broken arrows from M3, M2 and M4 to M8 in Figure 6 below:

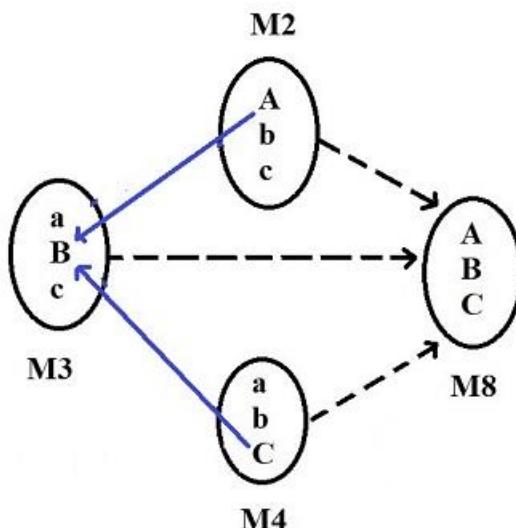


Figure 6 The unsustainability of deep capitalism/deep economy (M3) and its flipbacks

Notice that Figure 6 above does not only shows that all deep capitalism/deep economy flip backs are inconsistent with yellow sustainability requirements (M8), but also the model of deep capitalism/deep economy M3 is inconsistent with yellow sustainability as shown by the broken arrow from M3 to M8.

c) The unsustainability of the deep capitalism/deep economy model flips and flip-backs on the same plane

The unsustainability of the deep capitalism/deep economy model, its flips and flip-backs as well as the Thomas Kuhn's curse on the future of deep capitalism/deep economy thinking is highlighted in Figure 7 below:

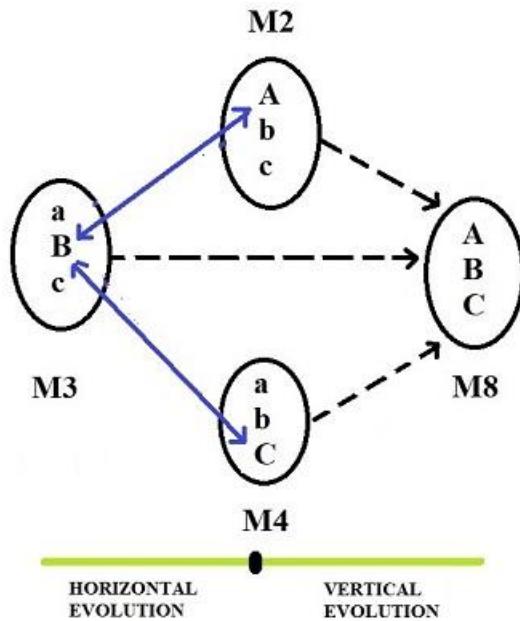


Figure 7 The unsustainability of the deep capitalism/deep economy paradigm (M3) and its flips and flip-backs

Figure 7 above highlights the area of horizontal paradigm evolution and of vertical paradigm evolution with respect to possible evolution routes. The left part of Figure 7 above indicates that deep environmentalism M4 flips horizontally to deep socialism M2 or deep capitalism M3, a move where deep capitalism/deep economy loses its core values; and these new deep paradigms flip-back horizontally, a move where deep capitalism/deep economy reclaims its core values. Notice that a flipped core value becomes a new abnormality or externality or bias or sustainability gap for example a flip from deep capitalism to deep environmentalism eliminates the environmental abnormality, but creates an economic abnormality or a flip back from deep environmentalism to deep capitalism, it eliminates the economic abnormality, but creates an environmental abnormality now; and this means that we are in world here in the left side of Figure 7 above outside the Thomas Kuhn's scientific evolution thinking loop as we are removing abnormalities in the flip or flip-back, but we are creating new ones at the same time. It

has been shown (Muñoz 2019b) that paradigm evolution, including deep paradigm evolution, under competition is driven by sustainability gap competition or clashes under win-win situations and no win-win situations, and specific sustainability gaps can bring down specific paradigms, including specific deep paradigms such as the world of Adam Smith and the world of Karl Marx(Muñoz 2016). Notice that it is the formal recognition that the socio-environmental externality problem associated with the working of deep capitalism had gone so bad by 1987 that led to the sustainable development work(WCED 1987); it was the recognition that there was an urgent need to give priority to the environmental externality or the environmental pollution problem associated with deep capitalism that led the world to formally contemplate a move to green market, green economy and green growth thinking that in the end morphed into dwarf green market, dwarf green economy and dwarf green growth (UNCSD 2012a: UNCSD 2012b).

The right side of Figure 7 above tells us that under socio-environmental externality pressures deep capitalism/deep economy will evolve vertically to fully or partially save its core values in indirect steps or direct steps as indicated by the direction of the blue arrows towards the highest level of responsibility possible, yellow sustainability market or true sustainability M8. The indirect way of vertical evolution as shown in Figure 7 above is a shift from independent perfect deep capitalism markets M3 to partially codependent perfect markets (e.g. the socio-economic market (SECM) or red market (RM) = ABC = SECM = RM), the eco-economic market (EECM) or green market (GM) = aBC = EECM = GM) ; and then these partially codependent markets shifts to fully codependent markets or fully conjunctural optimality based markets(e.g. Yellow sustainability markets (YSM) or true sustainability markets (S) = ABC = M8 = YSM = S). The direct way is a shift from independent perfect deep capitalism markets M3 to fully codependent markets or fully conjunctural optimality based markets (e.g. Yellow sustainability markets (YSM) or true sustainability markets (S) = ABC = M8 = YSM = S). Notice that every vertical shift removes abnormalities and it does not create new ones and any vertical shift means that the knowledge base of the previous paradigm is left behind as it no longer works here as it is; and when we remove abnormalities without creating new ones to move to higher level paradigms we are in the world of Thomas Kuhn's paradigm evolution loop.

The Thomas Kuhn's curse for the deep capitalism/deep economy paradigm:

Under binding socio-environmental externality or sustainability pressures, deep capitalism/deep market paradigms will evolve vertically in order to save their core value of economic responsibility, and indirectly or directly, its final destination is a world under yellow sustainability or true sustainability markets.

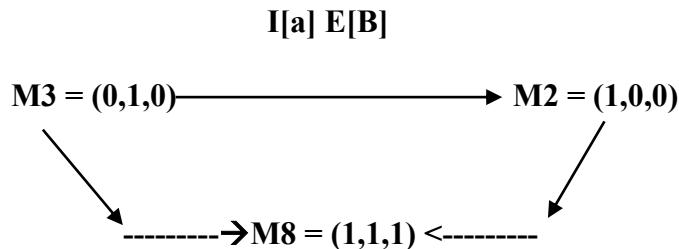
The case of deep capitalism/deep economy flips and flip backs in terms of conjunctural state variability

a) The deep capitalism/deep economy conjunctural state flip route to other deep conjunctural state paradigms

i) The case of the flipping towards the deep socialism conjunctural state under yellow sustainability conjunctural state gaps

1) Analytically

The idea of the flip from deep capitalism/deep economy conjunctural state to deep socialism conjunctural state under yellow sustainability conjunctural state gaps can be stated analytically as follows:



The top part of the loop above tells us that when the deep capitalism conjunctural state (M3) internalizes social concerns I[a] and externalizes economic concerns E[B] it flips and takes the form of a deep socialism market conjunctural state (M2). The lower part indicates that both the deep capitalism/deep economy conjunctural state M3 and the deep socialism conjunctural state M2 are delinked from the yellow sustainability conjunctural state M8 as indicated by the broken arrow since both of them have yellow sustainability conjunctural state gaps: the deep capitalism conjunctural state has socio-environmental yellow sustainability conjunctural state gaps (ac) and the deep socialism conjunctural state has eco-economic yellow sustainability conjunctural state gaps(bc).

2) Graphically

The flip from the deep capitalism/deep economy conjunctural state M3 to the deep socialism conjunctural state M2 can be summarized graphically as shown in Figure 8 below:

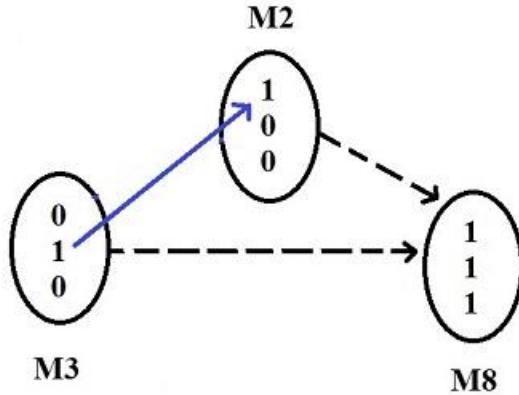


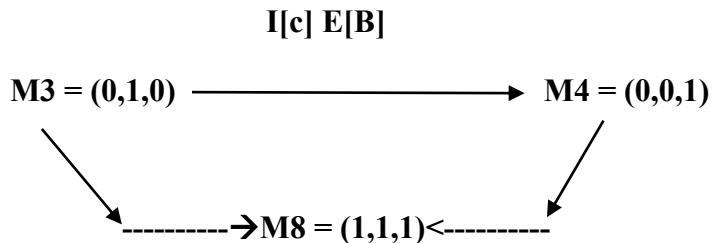
Figure 8 The flip from deep capitalism/deep economy state (M3) to deep socialism (M2)

Figure 8 above shows a flip from an economy first conjunctural state M3 to a society first conjunctural state M2 as indicated by the blue arrow, a horizontal shift from an independent economic Pareto optimality world to an independent social Pareto optimality world as it is a move from a one component dominant paradigm to another one component dominant paradigm. Figure 8 above also shows that both M3 and M2 are disconnected from the yellow sustainability conjunctural state as indicated by the broken arrows from M3 and M2 to M8.

ii) The case of the flipping towards the deep environmentalism conjunctural state under yellow sustainability conjunctural state gaps

1) Analytically

The idea of the flip from deep capitalism/deep economy conjunctural state to deep environmentalism conjunctural state under yellow sustainability conjunctural state gaps can be indicated analytically as shown below:



The top part of the loop above shows that when deep capitalism conjunctural state (M3) internalizes environmental concerns I[c] and externalizes economic concerns E[B] it flips and takes the form of a deep environmentalism conjunctural state market (M4). The lower part indicates that both the deep capitalism conjunctural state M3 and the deep environmentalism conjunctural state M4 are delinked from yellow sustainability conjunctural state M8 as indicated by the broken arrow since both of them have yellow sustainability conjunctural state gaps: the deep capitalism conjunctural state has socio-environmental yellow sustainability conjunctural

state gaps (ac) and the deep environmentalism conjunctural state has socio-economic yellow sustainability conjunctural state gaps(ab).

2) Graphically

The flip from the deep capitalism/deep market conjunctural state M3 to the deep environmentalism conjunctural state M4 can be highlighted graphically as shown in Figure 9 below:

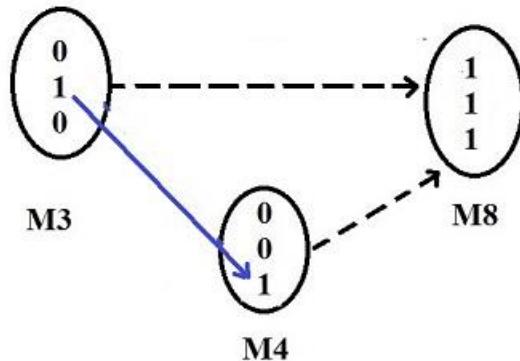


Figure 9 The flip from deep capitalism/deep economy conjunctural state (M3) to the deep environmentalism conjunctural state (M4)

Figure 9 above shows a flip from an economy first conjunctural state M3 to an environment first conjunctural state M4 as indicated by the blue arrow, a horizontal move from an independent economic Pareto optimality world to an independent environmental Pareto optimality world as it is a move from a one component dominant paradigm to another one component dominant paradigm. Figure 9 above also indicates that both M3 and M4 are disconnected from the yellow sustainability conjunctural state as indicated by the broken arrows from M3 and M4 to M8.

3) The unsustainability of the conjunctural state flips to other deep conjunctural state paradigms

If we place the deep capitalism/deep economy conjunctural state and its flips in the same plane we can see their disconnection with the yellow sustainability conjunctural state requirements as shown by the broken arrows from M3, M2 and M4 to M8 in Figure 10 below:

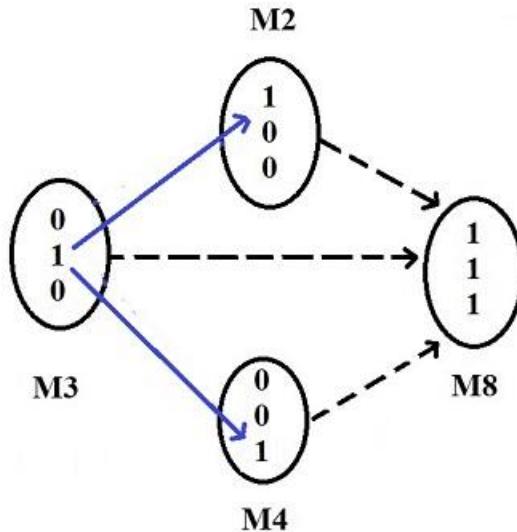


Figure 10 The unsustainability of the deep capitalism/deep economy conjunctural state (M3) and its conjunctural flips

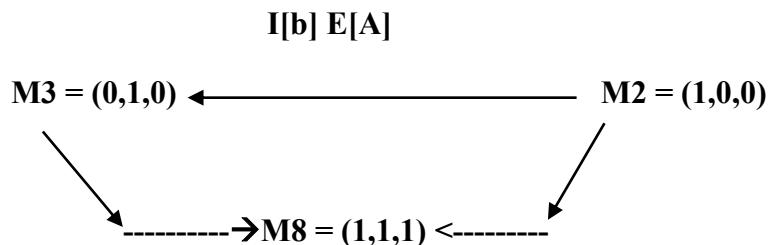
Notice that Figure 10 above does not only shows that all deep capitalism/deep economy conjunctural state flips are inconsistent with yellow sustainability conjunctural state requirements (M8), but also the conjunctural state of deep capitalism/deep economy is inconsistent with yellow sustainability conjunctural state as shown by the broken arrow from M3 to M8.

b) The deep capitalism/deep economy conjunctural state flip-back routes from other deep conjunctural state paradigms

i) The case of the flip-back from deep socialism conjunctural state

1) Analytically

The idea of the flip back from deep socialism conjunctural state to deep capitalism/deep economy conjunctural state under yellow sustainability conjunctural state gaps can be stated analytically as follows:



The top part of the loop above stresses that when deep socialism conjunctural state (M2) internalizes economic concerns I[b] and externalizes social concerns E[A] it flips and takes the form of a deep capitalism/deep economy conjunctural state (M3). The lower part indicates that both the deep capitalism conjunctural state M3 and the deep socialism conjunctural state M2 are

delinked from yellow sustainability conjunctural state M8 as indicated by the broken arrow since both of them have yellow sustainability conjunctural state gaps: deep capitalism conjunctural state has socio-environmental yellow sustainability conjunctural state gaps (ac) and deep socialism conjunctural state has eco-economic yellow sustainability conjunctural state gaps(bc).

2) Graphically

The flip back from deep socialism conjunctural state M2 to deep capitalism conjunctural state M3 can be indicated graphically as shown in Figure 11 below:

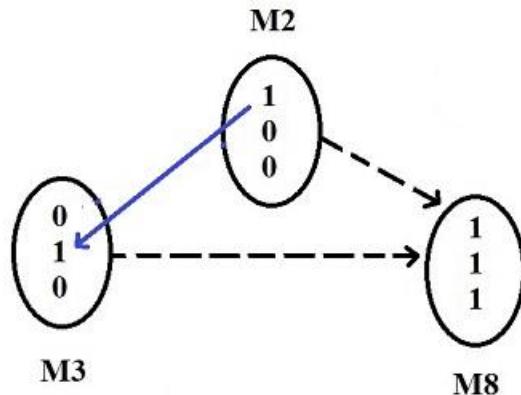


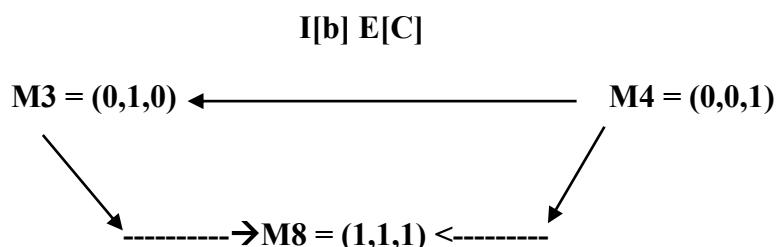
Figure 11 The flip back from deep socialism conjunctural state (M2) to deep capitalism/deep economy conjunctural state (M3)

Figure 11 above stresses a flip-back from a society first conjunctural state M2 to an economy first conjunctural state M3 as indicated by the blue arrow, a horizontal move from an independent social Pareto optimality world to an independent economic Pareto optimality world as it is a move from a one component dominant paradigm to another one component dominant paradigm. Figure 11 above also indicates that both M3 and M2 are disconnected from the yellow sustainability conjunctural state as indicated by the broken arrows from M3 and M2 to M8.

ii) The case of the flip-back from the deep environmentalism conjunctural state

1) Analytically

The idea of the flip back from deep environmentalism conjunctural state M4 to deep capitalism conjunctural state M3 under yellow sustainability conjunctural state gaps can be indicated analytically as follows:



The top part of the loop above points out that when deep environmentalism conjunctural state (M4) internalizes economic concerns I[b] and externalizes environmental concerns E[C] it flips and takes the form of a deep capitalism/deep economy conjunctural state (M3). The lower part indicates that both the deep capitalism conjunctural state M3 and the deep environmentalism conjunctural state M4 are unconnected from yellow sustainability conjunctural state M8 as indicated by the broken arrow since both of them have yellow sustainability conjunctural state gaps: the deep capitalism conjunctural state has socio-environmental yellow sustainability conjunctural state gaps (ac) and deep environmentalism conjunctural state has socio-economic yellow sustainability conjunctural state gaps(ab).

2) Graphically

The flip back from deep environmentalism conjunctural state M4 to deep capitalism conjunctural state M3 can be shown graphically as shown in Figure 12 below:

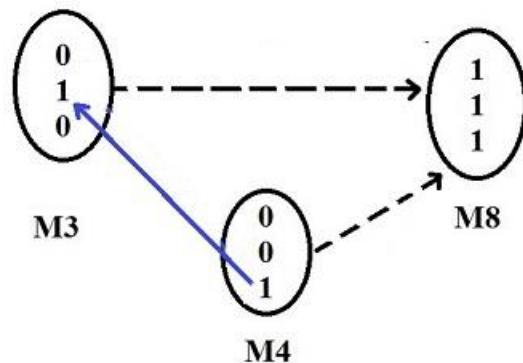


Figure 12 The flip back from deep environmentalism conjunctural state (M4) to deep capitalism/deep economy conjunctural state (M3)

Figure 12 above points out a flip from an environment first conjunctural state M4 to an economy first conjunctural state M3 as indicated by the blue arrow, a horizontal move from an independent environmental Pareto optimality world to an independent economic Pareto optimality world as it is a move from a one component dominant paradigm to another one component dominant paradigm. Figure 12 above also shows that both M3 and M4 are disconnected from the yellow sustainability conjunctural state as indicated by the broken arrows from M3 and M4 to M8.

3) The unsustainability of deeps capitalism/deep economy conjunctural state flip-backs

If we place the deep capitalism/deep economy conjunctural state and its flip-backs in the same plane we can appreciate their disconnection with yellow sustainability conjunctural state requirements as highlighted by the broken arrows from M3, M2 and M4 to M8 in Figure 13 below:

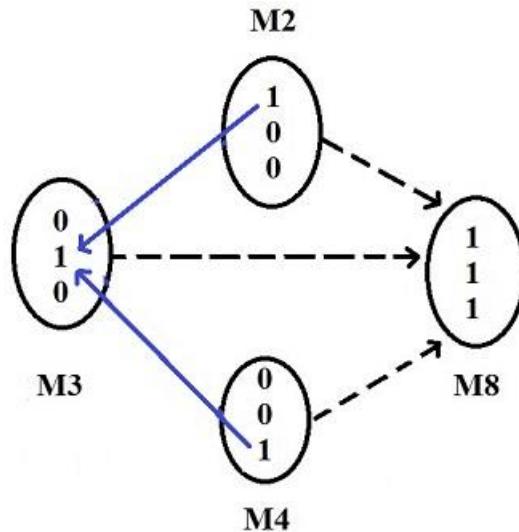


Figure 13 The unsustainability of the deep capitalism/deep economy conjunctural state (M3) and conjunctural flip-backs

Notice that Figure 13 above does not only indicates that all deep capitalism/deep economy conjunctural state flip-backs are inconsistent with the yellow sustainability conjunctural state requirements (M8), but also the conjunctural state of deep capitalism/deep economy M3 is inconsistent with the yellow sustainability conjunctural state as shown by the broken arrow from M3 to M8.

c) The unsustainability of the deep capitalism/deep economy conjunctural state flips and conjunctural state flip-backs on the same plane

The unsustainability of the deep capitalism/deep economy conjunctural state, its flips and flip-backs as well as the Thomas Kuhn's curse on the future of deep capitalism/deep economy thinking is stressed in Figure 14 below:

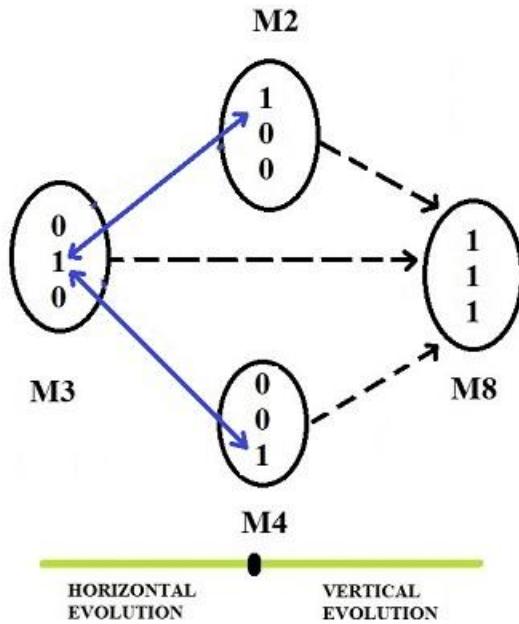


Figure 14 The unsustainability of the deep capitalism/deep economy conjunctural state (M3) and its conjunctural flips and conjunctural flip-backs

Figure 14 above points out the area of horizontal paradigm evolution and vertical conjunctural paradigm evolution with respect to possible conjunctural evolution routes. The left part of Figure 14 above indicates that the deep capitalism/deep economy conjunctural state M3 flips horizontally to either deep socialism conjunctural state M2 or deep environmentalism conjunctural state M4, a move where the deep capitalism/deep economy conjunctural state loses its core values; and these new deep paradigms flip-back conjuncturally horizontally, a move where the deep capitalism/deep economy conjunctural state reclaims its core values. Notice that a flipped core value becomes a new abnormality or externality or bias or sustainability gap for example a flip from deep capitalism conjunctural state to deep environmentalism conjunctural state eliminates the environmental abnormality, but creates an economic abnormality or a flip back from deep environmentalism conjunctural state to deep capitalism conjunctural state, it eliminates the economic abnormality, but creates an environmental abnormality now; and this means that we are in a conjunctural world here in the left side of Figure 14 above outside the Thomas Kuhn's scientific evolution thinking loop as we are removing abnormalities in the conjunctural flip or conjunctural flip-back, but we are creating new ones at the same time.

The right side of Figure 14 above tells us that under socio-environmental externality pressures the deep capitalism/deep economy conjunctural state will evolve vertically to fully or partially save its core values in indirect steps or direct steps as indicated by the direction of the blue arrows towards the highest level of conjunctural responsibility possible, yellow sustainability market conjunctural state or true sustainability market conjunctural state M8. The indirect way of vertical evolution as shown in Figure 14 above is a shift from independent perfect deep capitalism conjunctural state M3 to partially codependent perfect conjunctural states

(e.g. the socio-economic market (SECM) or red market (RM) = ABc = SECM = RM; the eco-economic market (EECM) or green market (GM) = aBC = EECM = GM); and then these partially codependent conjunctural states shifts to fully codependent conjunctural states or fully conjunctural optimality based states (e.g. Yellow sustainability market conjunctural state (YSM) or true sustainability markets conjunctural state (S) = ABC = M8 = YSM = S). The direct way, as indicated in Figure 14 above, is a shift from an independent perfect deep capitalism conjunctural state M3 to fully codependent conjunctural state or fully conjunctural optimality based states (e.g. Yellow sustainability market conjunctural state (YSM) or true sustainability market conjunctural state (S) = ABC = M8 = YSM = S). Notice that every vertical conjunctural shift removes abnormalities and it does not create new ones and any vertical conjunctural shift means that the knowledge base of the previous paradigm is left behind as it no longer works here as it is; and when we conjuncturally remove abnormalities without creating new ones to move to higher level conjunctural paradigms we are in the world of Thomas Kuhn's paradigm evolution loop. It has been recently highlighted (Muñoz 2025a) that traditional pareto optimality thinking as the one that holds in the deep capitalism model ($M3 = aBc$) and deep capitalism conjunctural state ($M3 = (0,1,0)$) in the figures above is inconsistent with conjunctural optimality thinking that holds in the yellow sustainability model or true sustainability model($M8 = ABC$) and in the yellow sustainability conjunctural state or true sustainability conjunctural state ($M8 = (1,1,1)$) and due to this an expansion of pareto optimality thinking has been proposed and shared (Muñoz 2025b) so we can properly look at fully conjunctural issues such as the unity of sustainability((Muñoz 2025c).

The Thomas Kuhn's curse for the deep environmentalism conjunctural state:

Under binding socio-environmental externality or sustainability pressures, deep capitalism/deep economy conjunctural states will evolve vertically in order to save their core value of economic responsibility, and indirectly or directly, its final destination is a world under yellow sustainability market conjunctural states or true sustainability market conjunctural state.

Specific implications

1) It is possible to look at the evolution of deep capitalism/deep economy, both from the component variability point of view and from the conjunctural state variability point of view both horizontally and vertically: Horizontal evolutions means new deep paradigms stays at the same level of externality irresponsibility as the old ones, but of different externality mix. Vertical evolution means the new paradigm has a higher level externality responsibility than the previous one and the knowledge base of the previous paradigm is left behind;

2) It is possible to look at the evolution of deep capitalism/deep economy based pareto optimality thinking, both from the component variability point of view and from the conjunctural state variability point of view: Horizontal evolution means horizontal inverse pareto optimality evolution. Vertical evolution means a move to a point of higher level Pareto optimality or responsibility;

3) It is possible to delinked horizontal deep paradigm evolution, including deep capitalism/deep economy paradigm evolution, both component and conjunctural evolution based, from the scientific paradigm evolution thinking a la Thomas Kuhn while it is possible to link vertical deep paradigm evolution, including deep capitalism/deep economy evolution, both component and conjunctural evolution based, to the scientific paradigm evolution thinking a la Thomas Kuhn: Removing abnormalities while creating new ones in the process as in horizontal deep paradigm evolution, including deep capitalism/deep economy evolution, means this falls outside Thomas Kuhn's paradigm evolution thinking and expectations. Removing abnormalities without creating new ones in the process as in vertical deep paradigm evolution, including vertical deep capitalism/deep economy evolution, means a world under Thomas Kuhn's paradigm evolution thinking and expectations

General implications from the deep capitalism/deep economy evolution angle

- 1) It is possible to expand paradigm evolution thinking beyond the world of Thomas Kuhn;
- 2) It is possible to expand Pareto optimality thinking beyond the world of traditional Pareto optimality thinking;
- 3) It is possible to see the type of paradigm evolution at play just by looking at whether or no new externalities are creating in the process; and
- 4) It is possible to show that the conjunctural theorem based world (a codependent world, full or partial) leaves the traditional additive thinking based world behind (a fully independent world) as here independent choices do not exist.

References

Marx, Karl and Friedrich Engels, 1848. Communist Manifesto, Communist League, London, UK.

Muñoz, Lucio, 2016. [Adam Smith and Karl Marx Under the Sustainability Eye: Pointing Out and Comparing the Sustainability Gaps Behind these Two Great Simplification Failures, Weber Economics & Finance \(ISSN:2449-1662 \)](#), Vol. 2 (3) 2016, Article ID wef_168, 533-539.

Muñoz, Lucio, 2019a. [The Theory and the Practice Behind the Market World that Followed the Fall of Red Socialism: What Are the Implications of Trading Social Responsibility for Economic Responsibility?](#), *Boletin CEBEM-REDESMA*, Año 12 No. 5, May, La Paz, Bolivia.

Muñoz Lucio, 2019b. [Paradigm Evolution and Sustainability Thinking: Using a Sustainability Inversegram to State Paradigm Death and Shift Expectations Under Win-Win and No Win-Win Situations](#). In: *Current Perspective to Economics and Management*, Vol. 1, Chapter 2, June 12, Book Publisher International, London, UK.

Muñoz, Lucio, 2025a. [Elucidating Note 103: How can we expand the idea of traditional Pareto optimality to all forms of perfect markets within a system that has social, environmental and economic components under conjunctural state theory?](#) In: *CEBEM-REDESMA Boletin*, Año 19, Nº 12, November, La Paz, Bolivia

Muñoz, Lucio, 2025b. [Short Elucidating Note 101: Why is traditional Pareto optimality thinking inconsistent with conjunctural Pareto optimality thinking?](#) In: *CEBEM-REDESMA Boletin*, Año 19, Nº 11, November, La Paz, Bolivia

Muñoz, Lucio, 2025c. [The Unity of Sustainability: Integrating Sustainable Lifestyles and Sustainable Production Units](#). In *CEBEM-REDESMA Boletín*, Año 19, Nº 9, September, La Paz, Bolivia.

United Nations Conference on Sustainable Development (UNCSD), 2012a. [Rio+20 Concludes with Big Package of Commitments for Action and Agreement by World Leaders on Path for a Sustainable Future](#), Press Release, June 20-22, New York, NY, USA.

United Nations Conference on Sustainable Development (UNCSD), 2012b. [The Future We Want](#), June 20-22, New York, NY, USA.

World Commission on Environment and Development (WCED), 1987. *Our Common Future*, Oxford United Press, London.