

## Sustainability thought 169: Does defining sustainability as sustainable development requires alternative academic facts? If Yes, what is the nature of these alternative academic facts?

Lucio Muñoz\*

\* Independent Qualitative Comparative Researcher / Consultant, Vancouver, BC, Canada

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**Abstract:** If we have two different models, model K and model L, then the model inconsistency principle tells us that the nature of model K is inconsistent with the nature of model L; and the theory-practice consistency principle indicates that the theory supporting model K is inconsistent with the practice supporting model L; and that the theory supporting model L is inconsistent with the practice supporting model K. Hence, it would be scientifically impossible to define model K as model L or define model L as model K.

Yet in the case of different models, the sustainability model and the sustainable development model, development stakeholders like the UN have no problem defining sustainability as sustainable development, a science based impossibility, which raises the question: Does defining sustainability as sustainable development requires alternative academic facts? If Yes, what is the nature of these?

**Key Concepts:** Different models inconsistency principle, theory-practice consistency principle, scientific truth, alternative academic facts, science, ideology, academic blindness, willful academic blindness, sustainable development, sustainability

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### Introduction

#### a) Stating the scientific truth

The scientific truth can be summarized based on two key principles, the different models inconsistency principle (DMIP), and the theory-practice consistency principle (TPCP), which are described below:

#### i) The different models inconsistency principle (DMIP)

If we have two different models, model K and model L, then the model inconsistency principle tells us that the nature of model K is inconsistent with the nature of model L, as indicated in Figure 1 below:



Figure 1 The different models inconsistency principle(DMIP)  
If we have two models, K and L, and they are different, then  
the nature of model K is inconsistent with the nature of model L

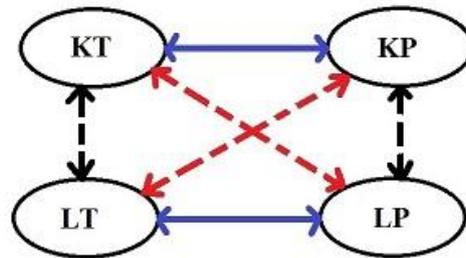
The broken blue arrow in Figure 1 above tells us that the natures of model K and of model L are inconsistent with each other. In other words, the nature of Model K is different than the nature of Model L; and the nature of model L is different than the nature of model K;

#### Implication 1: The K and L impossibility principle:

You cannot define different models such as K and L as the same as they have a different nature

#### ii) The theory-practice consistency principle (TPCP)

The theory-practice consistency principle indicates that the nature of the theory (KT) supporting model K is consistent with the nature of the practice (KP) supporting model K; and that the nature of the theory (LT) supporting model L is consistent with the practice (LP) supporting model L, a situation summarized in Figure 2 below by the blue arrows:



**Figure 2 The theory-practice consistency principle(TCP)**  
 If there are 2 different models K and L, then the theory of K is consistent with the practice of K and inconsistent with the practice of L; and the theory of L is consistent with the practice of L and inconsistent with the practice of K.

The following aspects can be highlighted based on Figure 2 above about the theory-practice consistency principle for model K and L: i) the continuous blue arrow shows that the nature of the theory of model K = KT is consistent with the nature of the practice of model K = KP; and the nature of the theory of model L = LT is consistent with the nature of the practice of model L = LP; ii) the broken black arrows tells us that the nature of the theory of model K = KT is inconsistent with the nature of the theory of model L = LT and that the nature of the practice of model K = KP is inconsistent with the nature of the practice of model L = LP; and iii) The broken red arrows indicate that the nature of the theory of model K = KT is inconsistent with the nature of the practice of model L = LP and that the nature of the theory of model L = LT is inconsistent with the nature of the practice of model K = KP.

**Implication 2: The theory-practice model consistency principle**

The working of any science based model (K or L) requires the existence of theory-practice consistency within that model (K or L).

**Implication 3: The theory-practice model inconsistency principle**

The working of any science based model (K or L) requires the existence of theory-practice inconsistency with a different model (K or L).

**b) Applying the scientific truth to the sustainability model and the sustainable development model**

**i) The sustainability-sustainable development inconsistency principle(S-SDIP)**

If we have two different models, sustainability (S) and sustainable development (SD), then the different model inconsistency principle (DMIP) tells us that the nature of the sustainability model S is inconsistent with the nature of the sustainable development model SD, as shown in Figure 3 below:



**Figure 3 The sustainability-sustainable development model inconsistency principle(S-SDIP)**  
 If we have a sustainability model(S) and a sustainable development model(SD), then the nature of the sustainability model S is inconsistent with the nature of the sustainable development model SD as they are different models

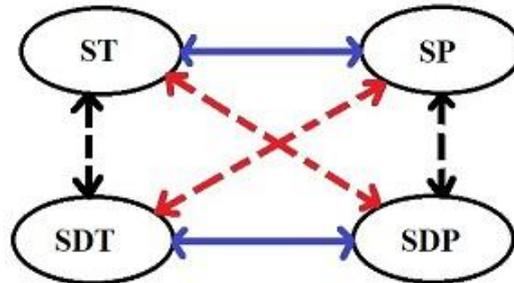
The broken blue arrow in Figure 3 above indicates that the natures of the sustainability model S and of the sustainable development model SD are inconsistent with each other. In other words, the nature of sustainability is different than the nature of sustainable development; and the nature of sustainable development is different than the nature of sustainability.

**Implication 4: The sustainability and sustainable development impossibility principle:**

You cannot define different models such as sustainability S and sustainable development SD as the same as they have a different nature

**ii) The sustainability-sustainable development theory-practice consistency principle (TPCP)**

The theory-practice consistency principle indicates that the nature of the theory (ST) supporting the sustainability model S is consistent with the nature of the practice (SP) supporting the sustainability model S; and that the nature of the theory (SDT) supporting the sustainable development model SD is consistent with the nature of the practice (SDP) supporting the sustainable development model SD, a situation summarized in Figure 4 below by the blue arrows:



**Figure 4** The sustainability-sustainable development theory-practice consistency principle (S-SDTPCP)  
 Sustainability S and sustainable development SD are two different models, then the theory of sustainability ST is consistent with the practice of sustainability SP and inconsistent with the practice of sustainable development SDP; and the theory of sustainable development SDT is consistent with the practice of sustainable development SDP and inconsistent with the practice of sustainability SP.

The following things can be stressed based on Figure 4 above about the theory-practice consistency principle as it applies to the sustainability model S and the sustainable development model SD: i) the continuous blue arrows show that the nature of the theory of the sustainability model (S) = ST is consistent with the nature of the practice of the sustainability model (S) = SP so there is sustainability model theory-practice consistency (SMTPC); and the nature of the theory of the sustainable development model (SD) = SDT is consistent with the nature of the practice of the sustainable development model (SD) = SDP so there is sustainable development model theory-practice consistency (SDMTPC); ii) the broken black arrows tell us that the nature of the theory of the sustainability model (S) = ST is inconsistent with the nature of the theory of the sustainable development model (SD) = SDT and that the nature of the practice of the sustainability model (S) = SP is inconsistent with the nature of the practice of the sustainable development model (SD) = SDP; and iii) The broken red arrows indicate that the nature of the theory of the sustainability model (S) = ST is inconsistent with the nature of the practice of the sustainable development model (SD) = SDP and that the nature of the theory of sustainable development model (SD) = SDT is inconsistent with the nature of the practice of the sustainability model (S) = SP.

**Implication 5: The Sustainability and sustainable development theory-practice consistency principle**

The working of any science based model (sustainability or sustainable development) requires the existence of theory-practice consistency within that model (sustainability or sustainable development).

**Implication 6: The sustainability and sustainable development theory-practice inconsistency principle**

The working of any science based model (sustainability or sustainable development) requires the existence of theory-practice inconsistency with a different model (sustainability or sustainable development).

**c) The UN definition of sustainability as sustainable development**

The United Nations (UN 2022) defines “sustainability as meeting the needs of the present without compromising the ability of future generations to meet their own needs.”, and hence it is defining sustainability as sustainable development as we know that the Brundtland Commission in 1987 (WCED 1987) defined sustainable development as sustainable development as it saw the social and environmental issues associated with the business as usual model shared by Adam Smith (Smith 1776) and which they found not to be working properly as issues that can be addressed through sustainable development theory and practice. Sustainability is a different development model than sustainable development (Muñoz 2003; Muñoz 2009), one that sees the social and environmental issues associated with the traditional market as embedded social and environmental sustainability issues (Muñoz 2020) that need to be addressed through sustainability markets (Muñoz 2016). In other words, the nature of sustainability vs the nature of sustainable development can be

understood as system thinking vrs additive thinking, optimization vrs maximization, inclusion vrs exclusion, cost internalization vrs cost externalization, as fixing externality problems vrs patching externality problems and so on. And therefore, based on the scientific truth emanating from the different models inconsistency principle and from the theory-practice consistency principles pointed out above we know that defining different models as the same is a science based inconsistency. Yet in the case of those different models, the sustainability model and the sustainable development model, development stakeholders like the UN have no problem defining sustainability as sustainable development. As doing this is science based impossibility, then it goes outside the scientific truth, which raises the question: Does defining sustainability as sustainable development requires alternative academic facts? If Yes, what is the nature of these alternative academic facts?

### Objectives

- a) To highlight the structure of the different model consistency principle and its alternative academic fact implications;
- b) To point out the structure of the different model equality principle and its alternative academic fact implications; and
- c) To stress the structure of the one model fits all principle and its alternative academic fact implications.

### Methodology

First, the terminology, concepts and rules used in this paper are shared. Second, the nature and implications of the alternative academic fact based different model consistency is introduced. Third, the nature and implications of the alternative academic fact based different model equality principle is highlighted. Fourth, the nature and implications of the alternative academic fact based the one model fits all principle is stressed. And finally, some food for thoughts and relevant conclusions are given.

### Terminology

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<b>S = Sustainability</b>	<b>DMIP = Different model inconsistency principle</b>
<b>ST = Sustainability theory</b>	<b>DMCP = Different model consistency principle</b>
<b>SP = Sustainability practice</b>	<b>TPCP = Theory-practice consistency principle</b>
<b>SD = Sustainable development</b>	<b>TPEP = Theory-practice equality principle</b>
<b>SDT = Sustainable development theory</b>	<b>SDP = Sustainable development practice</b>
<b>OMFAP = One model fits all principle</b>	

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### Operational concepts

- 1) **Science**, the world based on the scientific truth, this world falls if invalidated.
- 2) **Ideology**, the world based on the non-scientific truth, this world will tend to persist even if invalidated.
- 3) **The theory-practice general consistency principle**, the world where the theory of the model must match the practice.
- 4) **The different model general inconsistency principle**, the world where the theory and practice of different models are inconsistent with each other.
- 5) **Academic facts**, the science based truth.
- 6) **Alternative academic facts**, the non-science based truth.
- 7) **Academic blindness**, the inability to see academic facts due to the existence of knowledge gaps, paradigm shift based or otherwise.
- 8) **Willful academic blindness**, the willingness to ignore academic facts and consensus
- 9) **Sustainability**, the world where the interplay of sustainability theory and sustainability practice is aimed at fixing or correcting embedded externality problems.
- 10) **Sustainable development**, the world where the interplay of sustainable development theory and sustainable development practice is aimed at patching or managing embedded externality problems.

### The need for alternative academic facts when defining sustainability as sustainable development

As indicated in the introduction, the sustainability model and the sustainable development models are two totally different models, first one based on system thinking, optimization, inclusion, and cost internalization, and the second one based on non-systematic thinking, maximization, exclusion, and cost externalization. Hence, if we define sustainability as sustainable development or sustainable development as sustainability we are counting on alternative academic principles and facts as doing this is science based impossibility. The alternative academic facts come from 3 non-science based principles or alternative academic principles i) The

different model equality principle; ii) the different model consistency principle; and iii) The one model fits all principle, each of which are described below in detail.

**The different models equality principle (DMEP)**

If contrary to the academic facts we assume that sustainability is sustainable development, then we are creating a new alternative academic fact principle, the different models equality principle (DMEP) as pointed out in Figure 5 below:



**Figure 5 The sustainability-sustainable development model equality principle (S-SDDMEP)**  
 It is assumed that the nature of sustainability is the same as the nature of sustainable development perhaps based on the following your gut/intuition theory, and hence, sustainability is sustainable development.

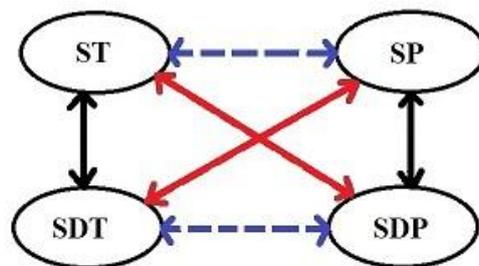
The continuous blue arrow in Figure 5 above indicates that the natures of the sustainability model S and of the sustainable development model SD are consistent with each other as they are of the same nature. In other words, here the nature of sustainability S is the same as the nature of sustainable development SD; and the nature of sustainable development SD is the same as the nature of sustainability S

**Alternative academic fact 1:**

You can define different models such as sustainability S and sustainable development SD as the same if you assume they have the same nature based on your intuition or non-science based means or willful academic blindness.

**The different models consistency principle (DMCP)**

If contrary to the academic facts we assume that the theory-practice consistency principle does not matter anymore as the theory of one model can work with the practice of the other model, then we are creating another new alternative academic fact principle, the different models consistency principle (DMCP) as indicated in Figure 6 below:



**Figure 6 The sustainability-sustainable development different model theory-practice consistency principle(S-SDDMCP)**  
 If we assume that the theory-practice consistency principle(TPCP) no longer matter as indicated by the broken blue arrows, then ST = SDT and SP = SDP as indicated by the continuous black arrows

The following aspects can be highlighted based on Figure 6 above: i) the broken blue arrows show that the theory-practice consistency principle making the sustainability model (S) and in the sustainable development model (SD) model science based models no longer matters as even without sustainability practice (SP) the sustainability theory (ST) works and even without sustainable development practice (SDP) the sustainable development model (SD) works as indicated by the red arrows. In other words, internal model consistency is no longer required here as the theory of one model works too with the practice of the other model since now they are the same model; ii) the continuous black arrows tells us that the nature of the theory of the sustainability model (S) = ST is consistent with the nature of the theory of the sustainable development model (SD) = SDT and that the nature of the practice of the sustainability model (S) = SP is consistent with the nature of the practice of the sustainable development model (SD) = SDP again as they are now the same model; and iii) The continuous red arrows indicate that the nature of the theory of the sustainability model (S) = ST is consistent

with the nature of the practice of the sustainable development model (SD) = SDP and that the nature of the theory of sustainable development model (SD) = SDT is consistent with the nature of the practice of the sustainability model (S) = SP, again as they are now the same model.

**Alternative academic fact 2:**

The working of any model (sustainability or sustainable development) does not require the existence of theory-practice consistency within that model (sustainability or sustainable development) as they are, by intuition or by non-science based thinking or by willful academic blindness, taken as being of the same nature; and therefore, they are the same model.

**Alternative academic facts 3:**

The working of any model (sustainability or sustainable development) does not require the existence of theory-practice inconsistency with a different model (sustainability or sustainable development) if the practice of one model is assumed to fit the theory of the other by intuition or by non-science based means or willful academic blindness (sustainability or sustainable development) as now they are the same model.

**The one model fits all principle (OMFAP)**

The combination of the different models equality principle (DMEP) and the different model consistency principle (DMCP) creates the third alternative academic fact principle, the one model fits all principle as stressed in Figure 7 below:



**Figure 7 The sustainability-sustainable development one model fit all principle(S-SDOMFAP)**  
 If we assume that sustainability theory(ST) equals sustainable development theory(SDT), then either model fits all the practice as the sustainability practice(SP) equals the sustainable development practice(SDP).

The continuous red arrow in Figure 7 above indicates: i) that the theoretical natures of the sustainability model S and of the sustainable development model SD are consistent with each other as  $ST = SDT$ , which means that the sustainability theory ST is the same as the sustainable development theory SDT; ii) that the nature of the practice of the sustainability model S and of the sustainable development model SD are too consistent with each other as  $SP = SDP$ , which means that the sustainability practice SP is the same as the sustainable development practice SDP; and iii) that both the sustainability model S and the sustainable development model SD can work with both sustainability practice SP and sustainable development practice SDP as they are of the same theoretical and practical nature. In other words, Figure 7 above tells us that now we have a one model fits all situation as the theory of the sustainability model (S) = ST or the theory of the sustainable development model (SD) = SDT works with both sustainability practice SP and sustainable development practice SDP

**Alternative academic fact 4:**

You can define different models such as sustainability S and sustainable development SD as the same if you assume by intuition or willful academic blindness or other non academic means that they are of the same nature, creating that way a one model fits all situation as any model (sustainability or sustainable development) can work or fit any practice available (Sustainability practice or sustainable development practice).

**General implication:**

The UN needs alternative academic principles and alternative academic facts to be able to define sustainability as sustainable development as such a definition is impossible using science based same model consistency principles and different models consistency principles and facts.

**Food for thoughts**

- 1) Would the Thomas Kuhn paradigm evolution loop break under willful academic blindness? I think yes, what do you think?;
- 2) Are alternative academic facts and principles a threat to paradigm evolution? I think yes, what do you think?; and

- 3) When alternative academic facts are in use does that mean you went from a science based world to the world of ideology? I think yes, what do you think?

### **Conclusions**

- 1) It was pointed out that it is a science based impossibility to define different models as the same model as doing that would violate the different model consistency principle and the specific model theory-practice consistency principle;
- 2) It was stressed that it is possible to define different models as the same but doing so would require the use of alternative academic principles and alternative academic facts; and it was highlighted that when the UN defines sustainability as sustainable development it is doing it in ways consistent with alternative academic principles and alternative academic facts, but inconsistent with science based principles and facts.

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