


# Chapter 12

## Our Future at Stake: A Reconceptualization

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### **ABSTRACT**

*This proposed chapter begins with an overview of rhetoric commonly used ranging from certainty, uncertainty, objectivity, subjectivity, sustainability, climate change, complexity, order, chaos, human security, food insecurity, are among the notions often ambiguously or inadequately deployed even if the intent is to identify appropriate paths toward a better world. It is contended that a more adequate orientation to analysis of global events should incorporate a cross-cultural perspective that goes beyond a Euro-centered approach, and which is more inclusive of the rest of the world and is holistic in its approach. Issues considered include sustainability, security, sovereignty, education, climate, artificial intelligence and so on.*

### **OVERVIEW**

This chapter begins with an overview of rhetoric and orientations commonly used purportedly to shed light on today's world condition. Terms ranging from certainty, uncertainty, objectivity, subjectivity, sustainability, climate change, complexity, order, chaos, human security, food insecurity, are among the notions often ambiguously or inadequately deployed even if the intent is to identify appropriate paths toward a better world. The overview at the beginning will attempt to shed light on how some of those usages blur rather than increase understanding of today's global concerns. I begin next with science and certainty and complexity.

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## **Revisiting 'Science,' Certainty, and Complexity**

It is instructive to review the process of continuous building of scientific knowledge as a way to identify the source of many of the used or misused terms. For example, I bring up the discovery by molecular biology of the fundamental blocks of life which was without question a major achievement. Subsequently it was realized, as theoretical physicists remind us, that this success in determining the basic elements that constitute life is not sufficient to help us understand the complexity characterizing and underlying the dynamics of life. In the 1970s this new understanding led to a distinction between what was referred to as shallow versus deep ecology, by which deep ecology meant going beyond identifying constituent elements to a view of interconnectedness and interdependence among elements or phenomena. It was becoming evident that there was need for a paradigmatic shift in science away from componential approaches anchored in the dichotomy between mechanism and holism, between substance (matter, structure, quantity) rigid and form (pattern, order, quality), toward holism, interconnections and interrelationships. Science was shifting from a rigid componential mechanistic approach, toward holism which became a necessary feature of the complexity paradigm. Theoretical physicist Fritjof Capra elucidated this shift in paradigm to holism and complexity (Capra 1996)

Complexity, which has originally emerged as a new paradigm in the fields of mathematics, the life sciences, extending to cognitive science, dominated the rhetoric about life and the universe. Holism became a component of the complexity paradigm seeking to uncover the complex ways in which interdependencies are formed not only in physical and biological systems but in sociocultural systems as well.

But as Gregory Bateson pointed out there is more than patterns of interconnectedness to be considered (Bateson, 1979: 13), bringing out the importance of a quality which he described as 'dance' to imbue relations with movement and non-linear interactions, "a dance of interacting parts". El Guindi writes: "Dance of interacting parts becomes a necessary quality of anything human and everything about culture" (El Guindi, 2008). Science, therefore, moves. Contrary to the view of science in terms of certainty, rigid conclusions, set frozen ideas, the paradigmatic shifts are based on a new look at existing ideas, and build on existing knowledge by analysing new data. In other words, there is more uncertainty in science and flexibility in the scientific process. It is a live process that links explanations and paradigm shifts to continuous experimentation, new considerations of ideas and re-examinations with new and of old data.

It is an uncertainty that ordinary folk are not comfortable living with. People have a need for certainty in their lives and often science is not comforting. This need was clearly expressed during the COVID-19 Pandemic when the world was awaiting anxiously for any announcements by the United Nations regarding the nature of the

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