

特別記念対談

**「未来を拓く独創と革新の力、
イノベーションを人類の幸福に」**

リチャード・R・ネルソン博士

コロンビア大学名誉教授 第27回本田賞受賞

福井 威夫

本田技研工業株式会社

代表取締役社長

Special Commemorative Dialogue

**Challenge plus creativity equals
Innovations for human happiness**

Dr. Richard R. Nelson

Professor Emeritus, Columbia University

Honda Prize Laureate 2006

Takeo Fukui

President and CEO, Honda Motor Company Ltd.

**財団法人 本田財団
HONDA FOUNDATION**

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技術や社会制度における「イノベーション」の研究を続けてきたリチャード・R・ネルソン博士と独自の革新的企業文化を未来に継ぐ本田技研工業・福井威夫社長。二人の対話から、時代を越えて発展を続けるイノベーションの真理を探る。

You may find a clue to what innovation is about from this dialogue between Dr. Richard R. Nelson, a researcher of long-run economic change through the interaction of technological innovation and institutional evolution, and Takeo Fukui, the energetic leader of Honda Motor's unique innovative culture.

リチャード・R・ネルソン博士

コロンビア大学名誉教授

Dr. Richard R. Nelson

George Blumenthal Professor of International and Public Affairs, Business, and Law, Emeritus, Columbia University



■略歴

- 1952年 オベリン大学（米オハイオ州）卒業
- 1968年 イェール大学教授
- 1980年 イェール大学社会政策研究所所長
- 1986年 コロンビア大学教授
- 2005年 コロンビア大学名誉教授 現在に至る

■Personal History

- 1952 B.A., Oberlin College
- 1968 Professor of Economics, Yale University
- 1980 Director, Institute for Social and Policy Studies, Yale University
- 1986 Professor, Columbia University,
- 2005 Professor Emeritus

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本田技研工業株式会社 代表取締役社長

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President and CEO, Honda Motor Company Ltd.



■略歴

- 1969年 早稲田大学卒業 本田技研工業入社
- 1987年 ホンダレーシング社長兼
本田技術研究所常務取締役
- 1998年 本田技術研究所社長
本田技研工業専務取締役
- 2003年 本田技研工業代表取締役社長
現在に至る

■Personal History

- 1969 Honda Motor after graduation from Waseda University.
- 1987 Managing director of Honda R&D as well as the president of Honda Racing.
- 1998 Senior managing director of Honda Motor as well as the president of Honda R&D.
- 2003 President and CEO of Honda Motor.

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Foster lasting innovative environment

Takeo Fukui First of all, Dr. Nelson, you received the 27th Honda Prize for your longtime innovation research, which is becoming increasingly influential in corporate decision-making and public policymaking processes. Please accept my hearty congratulations.

Richard Nelson Thank you very much. It is my great honor, on this day of Soichiro Honda's 100th birthday, to receive the award that bears his name. I thank my lucky stars.

TF I'm deeply impressed by our encounter on the centennial of Soichiro Honda's birth through the theme of innovation, for innovation has always been a motif underlying our corporate culture. Soichiro was, as well as being an adept engineer of his superb ideas, an extraordinarily innovative manager. Just as an example, he detached Honda R&D from Honda Motor to create a free nursery of technology invention and innovation. The innovative environment he created still serve as the backbone of our unrelenting challenges.

RN In the study of many models of economic change—rises and falls of companies and nations, I have had a strong interest in learning the strength of the Japanese carmakers behind their secular growth. And part of the reasons may lie in the succession of innovative environment you've just told me.

TF Yes, we've surely inherited tangible and intangible assets from our founders, which make it easier to bring about innovation in a spontaneous manner at any place within the company. But without updates, we cannot spark innovation. Our founders have left various types of what we call "company genes," but we wondered if there were outdated genes that may get in the way. So in an internal project several years ago, we sorted out these genes and picked up ones to carry over to the 21st century, like know-how, Honda language, proprietary activity system, and stuff like that.

RN That sounds a quite unique exercise. To my knowledge, anywhere in the American industry there used to be a practice in which managers and associates meet together and discuss

future directions, but it became obsolete long ago to my regret. Honda is different from this practice; your focus has been not on the direction to go, but on the selection to make on the company DNA. Yours is a special corporate culture.

TF You are probably the first economist who focused on the roles of technology innovation in society. Could you tell me what made you decide so?

RN When I was in graduate school, a question hit me. Many countries had seen enormous improvements in the productivity and the standard of living from late 18th century to the middle of the last century, but others not. How come? I started to study the process of economic growth, and soon noticed that some nations grew quick and continued to prosper, some had just started to grow, while others lagged behind in poverty. What makes the difference? This is where I began.

TF I see. That's a very fundamental question. As a corporate leader, I'm always concerned about the right direction of my company. But the underlying concern that drives me relates to what you've just said.

RN As a matter of fact, this is an age-old question in economics. A few hundred years ago, Adam Smith, "the father of modern economics," wrote his famous "An Inquiry into the Nature and Causes of the Wealth of Nations"—a book about economic growth strategy.

In this text, Adam Smith tries to understand why some nations prosper while others not, and explores how a nation's allocation of resources affects its wealth. In this context, mine can be viewed as a classic question of economics carried over from the age of Adam Smith.

TF I suppose the livelihood of poor people would improve if we know what determines the allocation of resources. Could you extend what you've found in your research?

RN OK, I did substantial research on this topic, and came to conclude technology innovation is the driving force behind the past two century's enormous improvements in the productivity and the standard of living. This means, for fuller understanding of the process of economic growth, I need to study how those innovations came about, or more broadly, the process of advance in technology.

At the same time, I also found technology innovation had been an area left untouched in modern economics. In other words, in order to work in earnest on this theme, I myself had to be an innovator of research on technology innovation. Then I went to MIT for one year to study engineering. From my experience there and elsewhere, I have always had a strong interest in, and respect for, technology in general; and such experience allows me to talk empathetically with engineers, too.

FT I'm very glad to hear that. We can understand your viewpoint in keen sympathy because all Honda CEOs including myself have an engineering background, and we all know technical strength is a driving force for innovation.

Lead the way by clearing the most difficult

FT Dr. Nelson, could you list a few of notable cases in which sci-tech innovation has played a key role in the sound progress of society?

RN Well, for example, a set of enabling technologies made possible to implement the CFC regulations against ozone depletion. At first many governments had opposed the move, and some even used their vetoes. But as CFC-substitute technologies were quickly made available, the opposing countries became able to get the CFC regulations reflected in their respective policies.

FT We had a similar example. In 1970s, we succeeded in the development of the world's first engine, CVCC, which meets the strict criteria of the Muskie Act. I was just hired when assigned to the CVCC project, and I got really into the development day in, day out. The CVCC engine is a milestone for the Honda innovation that heralded our subsequent culture of challenge.

RN Actually in my country, a lot of people are amazed to see Japanese carmakers keep producing quality vehicles for years. The Consume Reports, a popular magazine, reports once a year expert ratings and reviews on various types of consumer goods; and I remember Honda and other Japanese models swept the top positions in the 1980s, and after a quarter century they still do. It seems this is in large part because you keep up the good work in terms of evolutionary progress. I wonder if Japanese carmakers share innovation strategies each other for steady production of quality products. Or is there any secret that differentiates Honda from its competitors?

TF Each carmaker is one of a kind, I guess. Honda's innovation thrives on individual strengths. We have a culture in which our associates are empowered and trained to take on challenges, and they tackle the hardest ones as evidenced in the case of the CVCC engine. For another instance, when we started to expand overseas 50 years ago, we chose to build our first factory in Belgium just because Belgian government had faced difficult labor issues and imposed the strictest restrictions on foreign companies. In our founder's thinking, however, "Once you conquer the toughest country, the rest is a piece of cake." Of course, we had to do everything as the victims of these words (laugh). Seriously, this kind of difficult experience early on our motorcycle business helped us a lot start the four-wheel factory in the United States in the late 1970s, ahead of our Japanese competitors. I don't think there was a necessity in launching the Ohio operation; it's financially ridiculous if you just look at currency rates at that time. I guess it was more of an ideological decision in underlying belief that products should be made and tested in a great market—what a bold decision, but we succeeded after all.

Eggs of innovation in many baskets for future

RN I have dreamed of a society in which people from different countries, irrespective of the difference in the pace of progress in their respective country, cooperate with each other, advance at their own pace, and lead happy lives. Could you tell me a bit about your dreams, or dreams of Honda? What do you think is necessary to expedite innovation to fulfill your dreams?

TF To look back on our history, the key to Honda's continued growth is we have set up more than one pillar for our business by starting off with motorcycles, but expanding into automobiles and other power products. From various seeds we sowed, many stems grew. Having many stems makes it easier to thrive on adversity or challenges as well as to bring about innovation.

For a recent example, we started the development of fuel cell vehicle in the underlying conviction hydrogen will be the next energy. Of course, this project has a lot to do with environment and energy issues; but at a deeper level, it has been driven by our dream to alter the way auto industry advances with our fuel cell technology, which could in turn change our social evolution path set by the piston engine. No doubt a big challenge like this is prone to difficulties; but we can go because we've got our empowered associates and never blame them for their constructive failures.

RN Human society used to be ruled by a handful of elites, but today our focus is on how to lift the intellectual level of the entire society by providing universal access to quality education. By acquiring basic scientific knowledge, every citizen can understand where he or she is now from a historical and global perspective.

Spread of quality education is essential if we aim to achieve sustainable development because we know we'd face a lot of tradeoff situations and often make painful choices in the future. Although policymakers consider a balance between the cost and gain of such pains, many people don't understand why they need to pay their prices due to their ignorance. And if we choose an innovation-driven path for sustainable development, it's essential to eradicate scientific ignorance through quality education; otherwise, innovation-focused policies could never be supported by the majority. Conversely, if innovation-driven growth is on the way, it should bode well for the spread of Honda Foundation's ecotechnology.

TF Thank you for your valuable insight. In my view, Honda Motor and Honda Foundation are like brothers. Honda Motor uses its monozukuri ("making things") and Honda Foundation its concept of ecotechnology to fulfill the Soichiro's motto: "Dreams and Happiness for All, with Technology." We also share the DNA in which we cannot help but to dream big and go for those dreams. Soichiro once set up an anonymous fund and aided lots of spirited researchers, many of whom became sci-tech leaders of Japan later. As a kind of its extension, Honda Foundation just started an award program in Asia 2006, in order to support future sci-tech

leaders and sounder development of their countries. Honda Motor is also extending its frontiers by, for example, fuel cell and related environmental technologies, the two-legged robot ASIMO, and the HondaJet aircraft developed in the United States.

All these projects stem from the DNA of no one but Soichiro whose innovative mind was filled with love for people. And I guess his DNA still fosters the dynamisms of both organizations.

Complacency is our enemy, and we always try to start and complete new challenges in the big picture. We believe iterating this process consolidates our innovative technical strength, extends our company's life, and consequently boosts human happiness.

MEMO



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