รายงานการวิจัยฉบับสมบูรณ์

โครงการ

จริยศาสตร์การเกษตรและอาหาร: การศึกษาระบบ คุณค่าเพื่อเสริมสร้างความมั่นคงทางอาหารและ ความยั่งยืนของสิ่งแวดล้อม

ผู้ดำเนินการวิจัย

รศ. ดร. โสรัจจ์ หงศ์ลดารมภ์

ภาควิชาปรัชญา คณะอักษรศาสตร์

ทุนวิจัยจากงบประมาณแผ่นดิน

මඳ්දීහ්

สัญญาเลขที่ GRB_APS_๓๔_๕๗_๒๒_๐๑

โครงการวิจัยเรื่อง "จริยศาสตร์การเกษตรและอาหาร: การศึกษาระบบคุณค่าเพื่อเสริมสร้างความมั่นคง ทางอาหารและความยั่งยืนของสภาพแวดล้อม"

การรายงานความก้าวหน้าผลการดำเนินงาน (ครั้งที่ ๑)

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รายงานช่วงระยะตั้งแต่ ชื่อหัวหน้าโครงการ	วันที่ ๑ ตุลาคม ๒๕๕๖ ถึงวันที่ ๓๑ มีนาคม ๒๕๕๗ รองศาสตราจารย์ ดร. โสรัจจ์ หงศ์ลดารมภ์		
หน่วยงาน	วยงศาสตรางาวย ตว. เสรงง หงศสตารมภ ภาควิชาปรัชญา คณะอักษรศาสตร์		
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		งใว้ โดยมีการจัดประชุมวิชาการนานาชาติ APSAFE2013 แกษตร การประชุมจัดขึ้นเมื่อวันที่ ๒๘ ถึง ๓๐ พฤศจิกายน	
		เกษตร การบระชุมขตขนเมยานท ๒๘ ถึง ๓๐ พฤศจิกายน เมาร่วมงานกว่า ๘๐ คน และจะมีการจัดทำหนังสือรวม	
		เมารามงานการ 60 คน และขะมการขติบาทนั้งสอราม ยสำนักพิมพ์ Springer ประเทศเยอรมนี	
•		ยสานทพมพ Springer บระเทศเยยรมน าร ก็ได้จัดทำเป็นบทความวิจัยสำหรับตีพิมพ์ในหนังสือเล่ม	
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บทความคัดสรร และจัดส่งสำ			
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		 (หัวหน้าโครงการวิจัย)	
		วันที่ ๑๐ กรกฎาคม พ.ศ. ๒๕๕๗	

สัญญาเลขที่ GRB_APS_๓๔_๕๗_๒๒_๐๑

โครงการวิจัยเรื่อง "จริยศาสตร์การเกษตรและอาหาร: การศึกษาระบบคุณค่าเพื่อเสริมสร้างความมั่นคง ทางอาหารและความยั่งยืนของสภาพแวดล้อม"

สรุใ	ไรายงานก	ารเงิน ((งวดที	၈)

ชื่อหัวหน้าโครงการ

รองศาสตราจารย์ ดร. โสรัจจ์ หงศ์ถดารมภ์

เงินงวดที่ หนึ่ง ได้รับเป็นจำนวน ๑๗๕,๐๐๐ บาท (หนึ่งแสนเจ็ดหมื่นห้าพันบาทถ้วน)

มีการใช้จ่ายแล้วดังนี้ หมวดค่าใช้สอย

ลำดับที่	เลขที่ใบเสร็จ ใบสำคัญรับเงิน	วัน/เดือน/ปี	รายการ	จำนวนเงิน	หมายเหตุ
1			ค่าจ้างชั่วคราว (นัก วิจัยประจำโครงการ)	60,000	
2			ค่าจ้างทำเว็บไซต์ ของการประชุม	30,000	
3			ค่าใช้จ่ายในการจัด ประชุม	85,000	

รวมทั้งสิ้น 175,000 บาท

APSAFE2013

Food and Agricultural Ethics Conference at Chula



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CONFERENCE COMMENTS

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The First International Conference of the Asia-Pacific Society for Agricultural and Food Ethics

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Conference Theme: "Food Safety and Security for the Twenty-first Century"

28-30 November 2013

Chulalongkorn University, Bangkok, Thailand



(http://apsafe2013.files.wordpress.com/2012/09/apsafe-logo.jpg)Overview

The First International Conference of the Asia-Pacific Society for Agricultural and Food Ethics (APSAFE 2013) be held at Chulalongkorn University from November 28 to 30, 2013. The conference will be a forum for exchange of research findings and networking among academics in various disciplines, as well as policymakers and other stakeholders on the topic of ethical

implications of food and agriculture, broadly construed. The conference is organized in close collaboration with the series of conferences organized by the <u>European Society for Agricultural and Food Ethics (http://www.eursafe.org/)</u> (EurSAFE), of which the Asia-Pacific Society (APSAFE) is a sister organization.



The conference is jointly organized by the <u>Center for Ethics of Science and Technology</u> (http://www.stc.arts.chula.ac.th/) and the <u>Office of the Commission on Agricultural Resource Education (http://www.ocare.chula.ac.th/)</u>(OCARE), a new organization at Chulalongkorn University that concentrates on providing education to Chula students on agricultural and related topics. The Office of the UNESCO in Bangkok is also providing close collaboration. Funding for the conference is partially supported by a research grant from the National Research Council of Thailand.

The Asia-Pacific Society for Agricultural and Food Ethics (APSAFE)

The idea of establishing the Asia-Pacific Society for Agricultural and Food Ethics originated at a meeting organized by the UNESCO in Bangkok in December, 2011. The President and Vice-President of the European Society, Prof. Matthias Kaiser and Prof. Kate Millar were present at the meeting, together with Dr. Soraj Hongladarom, Director of the Center for Ethics of Science and Technology, Chulalongkorn University, Dr. Kriengkrai Satapornvanit from Kasetsart University, Dr. Pakki Reddi from India, both of whom had been collaborating with Profs. Kaiser and Millar on a project funded

by the European Union on ethics of food production. Dr. Darryl Macer, Regional Advisor for Science and Human Science in the Asia and the Pacific, UNESCO Bangkok was also present.

It was resolved during the meeting that the Asia-Pacific Society for Agricultural and Food Ethics be established in order to provide a forum of exchange of research findings and networking among schoalrs and scientists working on the ethical implications of food and agricultural production. Agricultural and food ethics is an interdisciplinary field consisting mainly of applied ethics, sociology, political science, economics, food science, environmental science and others whose main concern is the relation between food and agriculture on the one hand, and the socio-economic and cultural milieux in which food and agriculture find themselves on the other. Among the questions investigated in this field are: Are genetically modified food a viable alternative as a source of food for the present century? What are the ethical considerations surrounding the practice of aquaculture, such as safety issues, global justice, threats to the environment, and so on? Surely these questions are very important in today's interconnected world and need to be studied very closely.

It is for this reason that the Asia-Pacific Society for Agricultural and Food Ethics has decided to organize its first international conference, and the Center for Ethics of Science and Technology, Faculty of Arts, Chulalongkorn University, was deeply honored to have been formally invited by both the APSAFE and the EurSAFE to organize the meeting in November 28-30, 2013. The congress will represent the first attempt by scholars and scientists in the Asia and the Pacific regions to get together to share thoughts, insights, research findings and to create and deepen networking among scholars in Asia and elsewhere.



Call for Papers

As the world is becoming more interrelated and as the pace of scientific and technological advances is indeed breathtaking, there is always a need to think deeply about how values are infused in our food and agriculture more than ever. On the one hand, there is a need for having enough supply of

food to feed the growing population. This demands a series of breakthroughs in technology, among other factors such as equitable food distribution system. On the other hand, the rush to rely on technology to solve our problems has brought with it a number of serious problems which could have been prevented had we paid more attention on how those technologies might affect us in the longer run. Hence, there is a tension between "food security" on the one hand, and "food safety" on the other. The purpose of the conference is to ask the question where the balance between can be found, and in what form. As we progress deeper into the twenty-first century it seems we cannot avoid either food security or food safety. Is there a way so that we can optimally achieve both of them? And how?

Papers are being called that address the questions above, and also that deal with food and agricultural ethics from a variety of disciplines, such as sociology, anthropology, philosophy, food science, biotechnology, veterinary science, agricultural sciences, and others, especially as they are related to safety or security. There will be four main themes at the conference, listed below. However, papers do not have to fall directly into either of these categories, but are within the domain of agricultural and food ethics broadly construed are certainly welcome.

- Ethical considerations pertaining to the production of food
- Ethical considerations pertaining to the distribution and trading of food and agricultural products
- Environmental aspects, sustainability, contextual issues surrounding food, forestry and aquaculture production (e.g., land use, related issues in philosophy of technology, etc.)
- Food policy and regulatory issues in Asia and beyond, educational issues in food and agricultural ethics.

Please send an extended abstract of between 1,000 and 1,500 words, in Open Office or Microsoft Office formats, as an email attachment, to the conference contact before the deadline below. If the abstract is accepted, then a full paper of no more than 4,000 words should be submitted in order to be included in the conference proceedings volume. Templates for both the abstract (abstract.doc) and the full-paper (abstract.doc) are here.

Please send the abstract to s.hongladarom@gmail.com.

Publication

A book containing the papers which have been peer-reviewed and accepted for the conference will be edited and published by the Center for Ethics of Science and Technology. The book will be distributed to paper presenters during the conference. More papers can also be considered for publication in special issues of many journals, both published internationally and in Thailand, such as *Manusya: the Journal of Humanities*, and others. Selected papers will also be considered for the *Journal of Agricultural and Environmental Ethics*, published by Springer.

Registration

The registration page of the conference is now working. Please click <u>this link</u> (http://www.apsafe2013-registration.org/) to register for the conference. It is important that after

you register on this page, you have to look at your email inbox and click a link from the registration page, which contains another link for our bank so that you can pay the registration fees. So there are essentially two stages to the registration. Thanks a lot for your patience.

Important Dates

31 May 2013 30 June 2013

Deadline for submission of abstracts

15 July 2013

Notification of acceptance/rejection of abstracts

30 August 2013

Deadline for submitting full paper (for those whose abstract is accepted)

To be announced

Registration opens

31 July 2013 16 August 2013

Last day of early-bird registration

17 August – 31 October 2013

Normal registration rates takes effect.

28 to 30 November 2013

The APSAFE2013 Conference

Main Organizers

Office of the Commission on Agricultural Resource Education, Chulalongkorn University

Center for the Study of Peace and Conflict Resolution, Chulalongkorn University

Center for Ethics of Science and Technology, Faculty of Arts, Chulalongkorn University

Faculty of Veterinary Science, Chulalongkorn University

Institutional Partners

The European Society for Agricultural and Food Ethics (http://www.eursafe.org/) (EurSAFE)

<u>Eubios Ethics Institute (http://eubios.info/)</u>

International Advisory Board and Program Committee

The First International Conference of the Asia-Pacif...

Matthias Kaiser

Kate Millar

John Weckert

Pakki Reddi

Darryl Macer

Kriengkrai Satapornvanit

Annop Kunavongkrit

Kiattisak Duangmal

Ellen Kittson

Conference Secretariat

Office of the Commission on Agricultural Resource Education, Chulalongkorn University Chulalongkorn University, Bangkok 10330, Thailand Tel. and Fax +66(0)2218-9832

Contact

Dr. Soraj Hongladarom, s.hongladarom@gmail.com (mailto:s.hongladarom@gmail.com)

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One thought on "The First International Conference of the Asia-Pacific Society for Agricultural and Food Ethics"

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The First International Conference of the Asia-Pacific Society for Agricultural and Food Ethics

Conference Theme: "Food Safety and Security for the Twenty-first Century"

November 28-30, 2013

Chulalongkorn University, Bangkok, Thailand

Overview

The First International Conference of the Asia-Pacific Society for Agricultural and Food Ethics (APSAFE2013) be held at Chulalongkorn University from November 28 to 30, 2013. The conference will be a forum for exchange of research findings and networking among academics in various disciplines, as well as policymakers and other stakeholders on the topic of ethical implications of food and agriculture, broadly construed. The conference is organized in close collaboration with the series of conferences organized by the <u>European Society for Agricultural and Food Ethics</u> (EurSAFE), of which the Asia-Pacific Society (APSAFE) is a sister organization.

The conference is jointly organized by the <u>Center for Ethics of Science and Technology</u> and the <u>Office of the Commission on Agricultural Resource Education</u>(OCARE), a new organization at Chulalongkorn University that concentrates on providing education to Chula students on agricultural and related topics. The Office of the UNESCO in Bangkok is also providing close collaboration.

The idea of establishing the Asia-Pacific Society for Agricultural and Food Ethics originated at a meeting organized by the UNESCO in Bangkok in December, 2011. The President and Vice-President of the European Society, Prof. Matthias Kaiser and Prof. Kate Millar were present at the meeting, together with Dr. Soraj Hongladarom, Director of the Center for Ethics of Science and Technology, Chulalongkorn University, Dr. Kriengkrai Satapornvanit from Kasetsart University, Dr. Pakki Reddi from India, both of whom had been collaborating with Profs. Kaiser and Millar on a project funded by the European Union on ethics of food production. Dr. Darryl Macer, Regional Advisor for Science and Human Science in the Asia and the Pacific, UNESCO Bangkok was also present.

It was resolved during the meeting that the Asia-Pacific Society for Agricultural and Food Ethics be established in order to provide a forum of exchange of research findings and networking among schoalrs and scientists working on the ethical implications of food and agricultural production. Agricultural and food ethics is an interdisciplinary field consisting mainly of applied ethics, sociology, political science, economics, food science, environmental science and others whose main concern is the relation between food and agriculture on the one hand, and the socio-economic and cultural milieux in which food and agriculture find themselves on the other. Among the questions investigated in this field are: Are genetically modified food a viable alternative as a source of food for the present century? What

are the ethical considerations surrounding the practice of aquaculture, such as safety issues, global justice, threats to the environment, and so on? Surely these questions are very important in today's interconnected world and need to be studied very closely.

It is for this reason that the Asia-Pacific Society for Agricultural and Food Ethics has decided to organize its first international conference, and the Center for Ethics of Science and Technology, Faculty of Arts, Chulalongkorn University, was deeply honored to have been formally invited by both the APSAFE and the EurSAFE to organize the meeting in November 28-30, 2013. The congress will represent the first attempt by scholars and scientists in the Asia and the Pacific regions to get together to share thoughts, insights, research findings and to create and deepen networking among scholars in Asia and elsewhere.

Rationale

As the world is becoming more interrelated and as the pace of scientific and technological advances is indeed breathtaking, there is always a need to think deeply about how values are infused in our food and agriculture more than ever. On the one hand, there is a need for having enough supply of food to feed the growing population. This demands a series of breakthroughs in technology, among other factors such as equitable food distribution system. On the other hand, the rush to rely on technology to solve our problems has brought with it a number of serious problems which could have been prevented had we paid more attention on how those technologies might affect us in the longer run. Hence, there is a tension between "food security" on the one hand, and "food safety" on the other. The purpose of the conference is to ask the question where the balance between can be found, and in what form. As we progress deeper into the twenty-first century it seems we cannot avoid either food security or food safety. Is there a way so that we can optimally achieve both of them? And how?

The conference will attempt to provide answers to the questions above; furthermore, it will deal with food and agricultural ethics from a variety of disciplines, such as sociology, anthropology, philosophy, food science, biotechnology, veterinary science, agricultural sciences, and others, especially as they are related to safety or security. There will be four main themes at the conference, listed below. However, papers do not have to fall directly into either of these categories, but are within the domain of agricultural and food ethics broadly construed are certainly welcome.

There are four main topics will the conference aims at discussing in detail, namely

- Ethical considerations pertaining to the production of food
- Ethical considerations pertaining to the distribution and trading of food and agricultural products
- Environmental aspects, sustainability, contextual issues surrounding food, forestry and aquaculture production (e.g., land use, related issues in philosophy of technology, etc.)
- Food policy and regulatory issues in Asia and beyond, educational issues in food and agricultural ethics.

Objectives

- 1. To provide research findings on the topics related to agricultural and food ethics.
- 2. To function as a forum and a center for researchers, practitioners and policy makers in these areas to interact and exchange findings and viewpoints.
- 3. To encourage cross-disciplinary research aiming at directly addressing the world'd problems in

food and agriculture, especially as they are related to ethical, legal, social, economic issues.

Organization

The conference is joingly organized by the Office of the Commission of Agricultural Resource Education (OCARE), the Center for Ethics of Science and Technology, the Center for the Studies of Peace and Conflict Resolution, and the Faculty of Veterinary Science, Chulalongkorn University.

Format of Conference

- 1. Special lectures by invited keynote speakers.
- 2. Group discussions
- 3. Oral and poster presentations

Participants

- 1. Faculty and students from academic institutions in Thailand and abroad
- 2. Representatives from national governments, international organizations, non-governmental organizations.

Date and Venue

November 28 – 30, 2013, Chulalongkorn University

Conference Website

http://www.apsafe2013.org/

Expected Outcomes

- 1. A number of high-quality research works dealing with the ethical and other contextual aspects of food and agriculture
- 2. International network of scholars and scientists in these areas
- 3. Effective policy recommendations to concerned policymakers both at domestic and international levels.

Tentative Program

The First International Conference of the Asia-Pacific Society for Food and Agricultural Ethics (APSAFE 2013)

Venue: Institute Building 3 Auditorium and the Office of the Commission on Agricultural Resource Education, Chulalongkorn University

Thursday, November 28, 2013

Venue: Institute Building 3 Auditorium

8:30 – 9:00 9:00 – 9:15	Registration Opening/Welcome Address (President of Chula)
9:15 – 10:00	Keynote 1 (Kasem Watthanachai)
10:00 - 10:20	Break
10:20 - 10:50 10:50 - 11:20 11:20 - 11:50	Keynote 2 (Paul Thompson) Keynote 3 (Prateep Insaeng) Keynote 4 (Ruth Chadwick)
12:00 - 13:00	Lunch

Venue: The Office of the Commission on Agricultural Resource Education (OCARE)

13:00 – 14:20 Parallel Sessions

Ethics of Food Production

Session 1: Organic Farming

Organic Farming and Management of Asia Pacific's Food Landscape in a Rapidly Changing World, Aori R. Nyambati

The Effect of Organic and Inorganic Fertilizer on Production and Sesame Seed Oil Content and Feasibility in Sandy Coastal Land, Dewi Ratna Nurhayati, Aris E. Sarwono, and Budi Hariyono Sesame Plant Management (Sesamum indicum, L.) Based Manure Fertilizer in Sandy Soil—Yogyakarta, Indonesia, Dewi Ratna Nurhayati, P. Yudono, Taryono, E. Hanudin No Food Security without Food Sovereignty, Hans van Willenswaard

Session 2: Food Safety

Ethical Values of Food Safety, V. Balambal Ramaswamy

Ethics between Food Safety and Food Security – Challenges and Methods, Matthias Kaiser

Current Situation on Food Additives in Thailand: Use and Awareness, Kiattisak Duangmal

Global Challenges and Food Safety, F. Nasyrova, T. Volkova and A. Rahmatov

Session 3: Agrobusiness and Food Security

Rural Infrastructure and Gender Inequality in Agribusiness Development, Ayu Kusumastuti The "Monsantoization" of Agriculture, Tomás Agustin González Ginestet

Food Security and Agriculture in India: Challenges and Ethics, Sk. Z. Ali, V. Sandhya and K. L. Prasanna Kamar

Session 4: Animal and Livestock

The Future of Livestock: Feeding the World Sustainably and Humanely, Michael C. Appleby and Dinah Fuentestina

Use of Indigenous Filipino Food Ingredients in Processed Meat Products, Emelina A. Lopez, Maria Salve D. Chavez and Marie Karen M. Dumangas

The Distaste of Animal Clones: Evaluating the Moral Foundation for EU Policy Approaches to Animal Cloning for Food Production, Lisbeth Witthøfft Nielsen

15:20 – 15:40 Break

15:40 – 16:40 Parallel Sessions

Session 5: Multifunctional Agriculture and Food Production

Is "Multifunctional Agriculture" an Option for Upland Farmers in Thailand?, Chapika Sangkapitux, Pornsiri Suebpongsang, Varaporn Punyawadee, Aparawee Sukitaporn, Nucharee Pimpaoud, Jiraporn Konsurin, and Andreas Neef

Ethical Considerations in the Process of Food Production, Zhao Bing and Li Jianjun Future Strategies to Foster Integrated Rice-Duck Farming in Asian Developing Countries, Jungho Suh

Session 6: Technology, Food and Animals

Exploring the Social and Ethical Issues of Genetically Modified Animals in India, Scott Bremer, Matthias Kaiser, Nick Wright, Kate Millar and G. J. Pakki Reddy

Application of Modern Methods in Diagnostics of Alimentary Pathogenes in the Republic of Tajikistan, T. V. Volkova, F. Nasyrova and A. Rahmatov

The Social Importance of Biosecurity, Biosafety and Bioethics in Developing Countries, A. Rahmatov, F. Nasyrova and T. Volkova

16:40 – 18:00 Parallel Sessions

Session 7: Food Safety, Technology and Health

Impact of Processing on Pesticide Residues in Vegetables, Shashi Vemuri and Ch. S. Rao The Sodium Contents of the Snack Foods and the Ethical Considerations Pertaining to the Distribution in Schools, Wachira Singkong and Boonyakrit Rattanapun

Water Balanced Analysis for the Determination of Available Growing Season at sub-Watershed Basin Area, Loa Janam, East Kalimantan, Akas Pinaringan Sujalu

Nanotechnologies Promises to Improve Food Safety and Security, Basavaraj Madhusudhan

Session 8: Politics and Law

Intellectual Property Protection for Biotechnology and its Impact on Agriculture and Food Security, Jakkrit Kuanpoj

Pesticides and the Patent Bargain, Cristian Timmermann Intellectual Property Rights and Compassion, Soraj Hongladarom Seeds, Patents and Global Justice, Michel Korthals

18:00 - 18:30	General Meeting of the Asia-Pacific Society for Agricultural and Food Ethics

18:30 – 20:00 Welcome Reception (Venue: OCARE)

Friday, November 29, 2013

Venue: Institute Building 3 Auditorium

8:30 - 8:45	Registration
8:45 - 9:15	Keynote 5 (Vanus Taepaisitpong)
9:15 – 9:45	Keynote 6 (Jun Borras)
9:45-10:00	Break
10:00 - 10:30	Keynote 7 (Reidar Almås)
10:30 - 11:00	Keynote 8 (Shashi Sareen)
11:00 - 11:30	Keynote 9 (Ken Buckle)
11:30 – 12:00	Keynote 10 (Gary Steiner)
12:00 - 13:00	Lunch

Venue: The Office of the Commission on Agricultural Resource Education (OCARE)

13:00 – 14:00 Parallel Sessions

Ethics of Food Distribution

Session 9: Food Security and Policy

Food Security and Gender Vulnerabilities of Asian Women: The 2008 Rice Crisis, Sukrittiya Jukping

How Much Nowadays are We Obliged to Feed Others?: Prioritizing the Human Right to Food in the Age of Global Crisis, Puttawit Bunnag

What is Wrong with the "Technology Fix"?, John Weckert

Session 10: Anthropological and Economic Concerns I

Your Food on Your Ritual Tradition is the Main Forbidden Food for Us!, Edin Dahniar From Scot to Scoa—The Social Construction of Aquaculture, Helene Nilsen Sucked into the Global Vegetable Oil Complex: Structural Changes in Vegetable Oil Supply Chains in China and India, Compared with the Precedents in Japan, Midori Hiraga

14:00 – 15:20 Parallel Sessions

Session 11: Philosophical Considerations

Focal Food Paradigm: From Local Thing to a Good and Sustainable Society, Wethin Chatkoon Presentism as an Embedded Temporal Value of Modernity: An Analysis of the Modern Food System from the Energy Perspective, John Paragas Lambino Food Futures: Critical Reflection on Participatory Scenario Design, Anne Blanchard Permaculture Philosophy and Environmental Utilitarianism, Jungho Suh

Session 12: Anthropological and Economic Concerns II

What are the Moral Codes for Seed Saving? From the Interviews to the Practitioners in Japan, Aki Imaizumi and Motoki Akitsu

Factors Affecting Farmland Sale in Rural Northern Thailand, Anupong Wongchai

Reality of Food Desert in Japanese Big City and its Solution using Urban Agriculture, Yoshifumi Ikejima

The Cycle of Contract Farming, Tossapon Tassanakuniapan

15:20 – 15:40 Break

15:40 – 17:00 Parallel Sessions

Environmental Aspects, Sustainability and Contextual Issues

Session 13: Forestry and the Environment

Biosphere and Syntropy—What has Forestry to do with?, Wilhelm Bode

The Holistic Ethics of Sustainability, Jürgen Simon

Establishment of the International Peace Park@Kaeng Krachan: Ethics of Planting Trees for Peace, Ananya Trithipthumrongchok and Darryl Macer

Session 14: Monitoring, Assessment and Development

The Case of Biwako Quasi-National Park: An Analysis of Sustainability and Development, Naoko Katano and John XXV Paragas Lambino

Approaches to Hazard Mapping and Vulnerability Analysis in Ethiopia and Sudan, Degefa Tolossa

Remote Environmental Monitoring of Perishable Food Supply Chain: An RFID Pilot Study, Herman Gruenwald

Education and Perception

Session 15: Education and Management

Bioethics Includes Ethics of Food and Agriculture, Darryl Macer

Management, Food Preparation and the Ethical Dimension at the Khao Kaewsadet Education Center, Phramaha Min Pattuithanasombat and John Walsh

Ethical Dilemmas toward Food Security in Indian Scenario and the Role of Higher Educational Institutions, M. Selvanagayam, Francis P. Xavier and Jose Swaminathan

Food Policy and Regulatory Issues in Asia and Beyond—Analyzing the Complex and Wideranging Challenges, Biswajit Mahopatra

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Environmental Aspects, Sustainability and Contextual Issues

Session 16: Safety and Values

Preliminary Study of Squid Ink (Loligo sp.), Immanuel Sanka, Ni Wayan Erly S. D., Riswi Haryatfrehni, Rahadyan Aulia, and Nastiti Wijayanti

Arthropod Pest Management in Sustainable Agricultural Systems, Shaw-Yi Huang Agro-biodiversity Conservation, Ethics and Values: Matrix of Theories and applied Regulatory Mechanism, Dipankar Saha

Session 17: Philosophy of Food and Agriculture

Influence of Differences between Western and Eastern Philosophical Thoughts on Ethics of Genetically Modified Food, Wu Xingze, Wang Ming, Tang Shukun, Li Ang

Food Ethics: The Technological Analysis of Food Production, Choed Bandasak The Hubris in Claiming Hubris, Payam Moula

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Session 18: Awareness and Perception

Agricultural Ethics in Thailand: How Close (Far) Are We? Supawan Visetnoi and Pimpinan Somsong

Japanese Consumers' Altruistic Attitude and Food Choice: Two Years after Fukushima Accident, Hiromi Hosono, Mami Iwabuchi, Yuko Kumagai, Tsutomu Sekizaki

Securing Food by Farmer Participatory Agricultural Research and Development, M. Ilhan Cagirgan

19:00 – 22:00 Conference Banquet (Venue: Outdoor at the lawn in front of the OCARE Building)

- Presentation of the Best Paper Awards

Saturday, November 30, 2013

Venue: Institute Building 3 Auditorium

9:00 – 10:00 Plenary Panel: Education of the Next Generation of Farmers (Yukon Limlaemthong and Suriyan Vichitlekarn)

10:00 - 10:20	Break
10:20 – 12:00	Workshop: Designing a Curriculum for Agricultural Entrepreneurs, Chair: Annop Kunawongkrit
12:00 - 12:10	Note of Thanks, Annop Kunawongkrit and Soraj Hongladarom
12:10	Travel to the Golden Jubilee Museum of Agriculture, Pathumthani, Thailand (Lunch inside Bus)
13:00	Arriving at the Museum of Agriculture
18:00	Back to conference venue and nearby hotels.

Journal of Buddhist Ethics ISSN 1076-9005 http://blogs.dickinson.edu/buddhistethics/ Volume 20, 2013

Buddhism and Intellectual Property Rights: The Role of Compassion

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Buddhism and Intellectual Property Rights: The Role of Compassion

Soraj Hongladarom¹

Abstract

I offer an outline of a theory that justifies the concept of intellectual property (IP). The usual justification of IP is a utilitarian one that claims that the rights are justified because they provide incentives for further discovery and protect the innovator through a monopoly. I propose to broaden the protection offered by the IP regime; the argument is based on the concept of compassion (karuṇā) which aims at relieving suffering in all others. An analysis of how the patented product comes to be shows that not only the scientists in the laboratory are responsible, but many factors and elements are also responsible, many of whom do not belong to the corporation in which the experiment is usually conducted. As these elements have a necessary role in the discovery of the new invention, they have to be treated fairly too. In practice this could mean that the resulting patented product be made more accessible to the general population who needs it and a more active involvement in the society by the corporation. In the end this will be beneficial for everyone in the long run.

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Introduction

Intellectual property rights and their enforcement have become global. International and intercontinental trades have resulted in the notion of intellectual property rights, their legal underpinnings and systems of practices pervading practically every country all around the world. The notion of intellectual property and the claim to rights to it, however, are wrought with controversies. Those who defend the notion typically argue that intellectual property rights (IPR's) are necessary as an incentive for creative work and innovation which can be useful and beneficial to the world. What a claim to IPR's allows is a period where the rights holder is entitled to a monopoly of the use of the property and gains monetary returns from the monopoly. On the contrary, the regime of IPR's has engendered criticisms from many corners due to the very monopolistic nature in question. By holding the monopoly, the right holder can create an unjust situation where the patented product carries unusually high price in the market. In case where the product is a necessary one, such as life-saving medicine, this can create an imbalance where those who are in need of the medicine might not be able to afford it. The very monopolistic nature of claims to IPR's, then, can become a source of inequality and injustice.

The controversies created by the use and enforcement of IPR's in various fields point to the need to explore the very foundation of the whole concept of IP itself. Thus what I would like to do in this paper is to investigate how Buddhist ethics regards the problem of intellectual property rights and what it has to say on the issue. The basic question for the paper is: How could the concept of IP be modified in order for it to become ethical? A related question is: How do the concepts available in Buddhism have a role to play in such modification? These are very complex questions, and all I can hope to accomplish in this paper is to provide a brief sketch or a general outline of what could be further developed as a theory based on Buddhist philosophy. I argue that the notion of compassion (karuṇā) is centrally important in an attempt to answer these questions. Compassion, as is well known, is the desire to alleviate someone of their suffering and the action needed to carry out the alleviation. Hence the holder of an IPR

is said to be compassionate when she sees the sufferings borne by her fellow human beings and realizes that the intellectual property to which she is entitled can in fact alleviate those suffering and act out accordingly. And the reason why she should be compassionate rather than not is because this would be beneficial to everyone in the long run, including the right holder herself.

Buddhism and the Concept of Property Rights

It is well known that central to the teachings of the Buddha is the realization that in order to achieve the final goal of Liberation, the practitioner needs to learn how to eliminate ego grasping which is a key element in her wandering in <code>saṃsāra</code>. Ego grasping consists of taking things as 'me' and 'mine.' The two are always intertwined with each other. Without the me, there can be no mine, and vice versa. Thus from the perspective of the central teaching here it might seem that the Buddha has a negative attitude toward property. For property is always the 'mine' of somebody. It might seem that in order to achieve the goal of <code>nibbāna</code>, one has to relinquish all property, not taking anything as belonging to the me at all (since there is no taking anything as the me either).

However, the Buddha does not intend to start a social or a political revolution. To teach that one has to let go of one's property might seem on the surface a kind of teaching that advocates an anarchist regime that recognizes no personal property at all. Viewed in this perspective, the Buddha's teaching to his followers that one should abandon grasping of the me and the mine could be regarded as advocating a kind of utopian regime where everybody lives together peacefully without any conception of personal property rights. But the Buddha did not do such a thing. He advises his students to let go of the attachment to personal property, but nowhere does he advocate any change in the political and legal structure of the society he happens to find himself in. Furthermore, in the *Vinaya*, the second *Pārājika* rule says emphatically

that monks who take what does not belong to them, costing more than 5 *māsakas*, will be expelled from the Order, never to return. We do not exactly know how much a *māsaka* is worth, but it is enough for a thief who steals a property worth more than that to be imprisoned, banished or executed. (*DK*) It is clear, then, that the Buddha does not wish to create any conflict between his congregation and the political authority in the area. Whatever is regarded as the law in an area, the monks have to follow it.

In order to get clearer about how Buddhists view personal property, the story behind the proclamation of this Defeat rule should be elaborated. The Buddha and his monks once stayed in Rājagraha, which was ruled by King Bimbisāra. A monk took away pieces of wood that were kept by the king for emergency purposes. When the king found out about this he enquired the monk and the latter said that the king once said that he gave away wood and water for the monks who followed the Buddha for their own use. The king was reminded that he indeed said such thing but then he said that what he meant was that the monks were free to make use of wood and water that was there in the forests, where no one claimed to be the owner. However, this was a very different matter when the monk took away pieces of wood which were specifically designated by the king as reserves for emergency uses. These pieces of wood certainly belonged to the king. The king eventually did not punish the monk, since he himself was a follower of the Buddha. However, when the people of Rajagraha learned about the incident they started to reprimand the monk a good deal and they continued saying that the followers of the Buddha were not worthy of respect and of their status as samana. When the Buddha found out about this, he asked one of his monks who used to be a judge before coming to the Order what was the lowest price of a piece of property which would incur the punishment of imprisonment, banishment, or death. The monk then answered the price was 5 māsakas. The Buddha then proclaimed that henceforth any monk who take as his own any piece of property worth more than 5 māsakas would be forever banished from the Order and defeated as a monk (DK).

The story shows clearly that the Buddha does accept the right to property. The right of King Bimbisāra to the wood is clearly recognized, and the monk who took away

the wood was given strongest censure. Does this conflict with the teaching that one should let go of one's attachment to the mine? Following the law of the land and the wish of the political authority is one thing, and carrying on the mindset of non-attachment to physical things is another. So we can conclude from this episode that the Buddha does fully accept the right to property, at least when it comes to the property of people outside of the order. The Buddha does not want his Order to create rifts or conflicts with the surrounding community, a move that we always discern from him. However, when it comes to the Order itself, we know from the *Vinaya* rules that monks are not allowed to keep any personal possessions beyond the merest necessities.

Perhaps we can use the Buddha's acceptance of whatever law happens to prevail in the area where he and the monks reside as a basis for arguing that the Buddha does also accept intellectual property as a kind of property to be protected by the Vinaya rule, especially the Second Pārājika Rule being discussed here (or should coherently do so if he were acquainted of it). However, Ven. Pandita argues that theft of intellectual property does not breach the Second Rule because the owner of the property in question does not suffer any real loss through the illicit copying or unauthorized use of the protected copy or product (Pandita). Pandita argues that since any "loss" that results from a breach of IP protection mechanism is merely a potential one in that the owner does not stand to lose any physical property that she already has in her possession, the "loss" here does not count as a kind of loss that would incur a breach of the Second Defeat Rule. A merchant of software products, for example, would stand to gain a certain amount of money if a certain number of copies were sold. But if a part of those copies were illicitly downloaded without payment, then the merchant clearly loses some amount through the download. In this sense, according to Pandita, the loss would be a potential one in that the merchant does not already have this exact amount in hand in the first place (Pandita 601).

Pandita is interested in the question whether a violation of someone's IP rights constitutes a breach of the Vinaya rules. Is a monk who downloads a pirated copy of a movie for his personal consumption be guilty of stealing and thus is defeated as a

monk? Pandita does not think so because downloading the movie only deprives the rights holder of potential, and not actual, gains. However, since each sale of a legal copy of the movie has to include an amount of royalty paid back to the rights holder, it seems that each instance of downloading a pirated copy of the movie would actually deprive the rights holder of their royalties. If we imagine further that the sole source of income for the rights holder is through these royalties, a certain number of downloading the pirated version would certainly make the rights holder poorer than he should be. In other words, downloading the pirated copies would be tantamount to cutting off a source of income that is available to him, and this could well be his only source. To make someone actually poorer in this way sounds very much like theft and a breach of the Second Pārājika Rule. When the Buddha discusses the case of the monk who stole the wood reserved by King Bimbisāra, he asked one of his disciples who used to be a senior judge to help him with information on what would be the normal legal procedure were the perpetrator not a member of the Order. When he learns about the law and the punishment he then proclaims the Rule in order that monks would not commit the same violation of the law again the future. This shows that the Buddha follows whatever law that prevails in the area. It is conceivable, then, that the law on IPR's being what it is now, the Buddha would also forbid monks to violate it. Pandita may be right that violating some parts of the IP law does not necessarily mean violating the Vinaya rule, but as long as IP law remains law of the land in which the monk resides, the monk has to follow it. The Buddha has clearly set a precedence in this regard.

In any case, the purpose of this present paper is not to investigate whether a violation of IPR's constitute a violation of any *Vinaya* rules or not. Instead the purpose is to analyze the very concept of intellectual property itself with an eye toward reforming or modifying it so as to be fully fair and beneficial to society.

Modifying the Concept of IP and the Role of Compassion

What we have learned from the previous section is that the Buddha does not abrogate the concept of property rights. Letting go of the attachment to the me and the mine does not lead to Buddhists abandoning the concept all together and turning into economic anarchists. The story that led to the proclamation of the Second Defeat Rule shows us that the Buddha did not want to create any conflict between his Order and the surrounding community as well as any kind of political authority that rules over the area. Extrapolating from the Buddha's time to ours, we see that the Buddhists should also follow the law of the land regarding IPR's. However, this does not mean that we cannot use the insights from the Buddha's teaching to propose a change in the system of IPR's itself. What I propose is that the concept of compassion (karuṇā) can be applied to the proposed analysis so that the whole system of IPR's become more equitable and conducive to justice than it apparently is right now.

The most prevalent theory of IP is a utilitarian one. That is, IP is justified because it is deemed to be a necessary factor in securing desired results that would not obtain if the system of IP were not in place to protect them.² The reason usually given in support of IPR's is that they need to be there in order to provide incentives to the would be innovators and to protect their investments and the fruits of their effort. A

In fact there are other theories of IP, the most important one after the Utilitarian Theory being the deontological one. The basic idea behind the Deontological Theory is that IPR's are *rights*, and as such they inherently belong to individuals by virtue of their being rational and autonomous. There is not enough space in this paper to criticize the concept of IP rights within this theory, but any Buddhist critique of a theory that emphasizes the role of IPR's as rights would be to point out that the right to IP is an acquired right; that is, one is not born with these rights, but they occur to an individual as a consequence of the latter's doing something such as inventing a new drug that can be patented. Here the general contour of the Buddhist critique I am offering in the paper can be applied. In doing something that results in an entitlement of an IP right, the innovator has to enlist the help of a web of interconnected factors, which should be treated fairly through the benefits enjoyed by the IP protection. For a defense of the Deontological Theory, see Merges; for a collection of essays dealing with the philosophy of IP, see a volume edited by Lever. A summary of all the major theories of IP can be found in Fisher.

criticism of this kind of theory is that it is difficult to distinguish clearly who the real innovator is. Since modern technology has become enormously complex and involves a large number of collaborators who may live in different countries all around the world, the innovation that is patentable today is very much an effort of a very large group. In this case it is difficult to pinpoint who is responsible for the idea that leads to the innovation to be patented. One possibility of course is to grant the right to the resulting IP to the organization or the corporation that manages the work of the whole group. This is certainly what is being done routinely. The right is granted to the organization or the corporation as if they were a single entity, and it is justified, according to the utilitarian theory, by referring to the consequences or the results that would arise due to the enforcement of the IP regime. Instead of saying that the individual would benefit from the fruits of his or her effort, the reality is that it is the corporation that benefits from the fruits of their effort.

The effort of the corporations, then, may involve thousands of people working all around the globe. Someone within the corporation may conceive of a new idea and then the idea is tested and examined and prototypes made within the compound of the corporation. But is it really the case that everything involving the conceiving and testing of the new product occur exactly within the confine of the corporation? Even if the corporation keeps its product development a closely guarded secret, the fact of the matter is that it is always possible, and in principle actually necessary, that outside influences have a role to play. The prototype product may be tested with some members of the public outside of the corporation; the corporation itself has to interact with outside factors in various ways. The way of first one who conceives of the idea which led to the prototype may get her inspiration from interacting with the outside world, probably the world of her family at home. These interactions are on the surface mundane ones and usually are not given much thought to. However, the principle of IP according to the utilitarian theory is that the IP is there in order to protect the returns that would accrue as a result of the innovation. In short the idea is to give credits to all to whom the credits are due. But how exactly are we to measure to whom the credits are due and how much? The innovator first conceives of an idea through talking with a

small child, who proposes an innocent idea which the innovator catches on and develop into a full blown blueprint. How much credit should the child receive? A pharmaceutical company develops a new molecular compound of a drug that could save millions of lives. The idea behind the molecule comes from a chemical found in a plant in a rain forest in a developing country. How much credit should the developing country receive? And the plant itself might be recommended to the innovator by natives living inside the forest. How much credit should they receive too? Nothing lives in a vacuum, and this is especially the case in today's world where everything seems to be always interconnected through social media and communication technologies. Ideas float around at the speed of light everywhere.

The idea I am pushing forward is of course that it is difficult to pinpoint exactly who exactly are the ones to whom the credit is due. If the *raison d'être* of IPR's is to protect the return of investment and to provide incentives, then the protection should be broad enough to cover the child, the developing country, and the natives too. And as this web of interconnection and interdependence goes on, the credit needs to be allocated fairly across the whole network. It is true that the corporation is the one who invests the money to develop and market the product, but even the money here comes from investors who may have bought the shares of the company in the stock market. From their perspectives the investors are clearly outsiders to the company. But they too have stakes in the company and the developed product. The money comes from the investors, the idea comes from all kinds of interaction that the innovators has with all kinds of contexts, the drug molecule comes from a native plant in a rain forest, the web can continue. The idea I am proposing is thus a simple one. The return that is promised by the IP regime has to be broad enough to cover all this network.

We can see the Buddhist insight behind the proposal I am making here. The idea is that of interconnectivity or interdependence (or dependent origination). The discovery which leads to the patented product would not have been possible if not for the help and input from various sources from outside of the corporation or the laboratory in which the scientist is working. The utilitarian theory says that the

entitlement to IP rights is justified because the innovator has expended a lot of effort into the research and development of the product, and the IP rights are there to guarantee that the innovator is entitled to a fair return of the investment. This atmosphere creates an incentive that stimulates further research and discovery. However, this view is predicated on the idea that it is the innovator alone that is responsible for the product and the associating intellectual property. But if what I am proposing is tenable, that there is indeed a web of interconnected factors that are actually necessary in the process of research and development, then factors within the web too have to be taken care of when it comes to the reward that results from the patent. In the case of the drug discovery based on a native medicinal plant, at least the natives who live in the area where the plant is found needs to be compensated in one way or another, not merely as someone on the outside who happens to sit on the right plant, but as a stakeholder who has been involved with the process of research and development from the beginning. This would ensure that the fruits of the patent be beneficially and justly shared. Furthermore, there are other factors. The political authority that has jurisdiction over the forest in which the right plant is found is also an indispensable player in this process, and they have to have a share in the fruits also. And since everything is connected with everything else, to limit the fruits of the research to the innovator alone does not seem to be enough. The process leading to the discovery of the patented product always involves a number of other contextual factors, and without those factors the discovery would not have been possible. Thus, the question as to who owns the resulting intellectual property should be broadened. Not only does the innovator and the company he works for possess the entitlement to the intellectual property, but the property should in some sense belong to the whole networks of interconnection. The upshot is that benefits accrued through the use of the patented product should be shared among all the nodes within the network too.

The recognition of the necessary role of the web of interconnection here is an expression of compassion. It is a recognition that one is always connected with others, that the very fact that there is oneself is only because of the existence of others, and vice versa. When one realizes that one is actually "one and the same" with others

around oneself, one feels that any interests that one takes to belong to oneself extend to all others too. In short, the recognition of who is actually oneself expands to include other people and other things too. What results is that the egoistic self—the 'me' and the 'mine'—is dissolved into the realization that what is 'this' or 'that' actually depends on their relations with others, so much so that any 'this', 'that', or 'other' depends for their being on these relations. This is known as the Doctrine of Emptiness (suññatā), which in fact is coextensive with the Doctrine of Dependent Origination (paticcasamutpāda) or Interdependence (idappaccayatā).

Buddhist philosophers would be immediately reminded of Nāgārjuna's view that the two Doctrines are actually one and the same, or at least coextensive with each other. This is corroborated by *Kaccānagotta Sutta* in the Pāli Tipitaka where the Buddha states that Emptiness and Interdependence are one and the same. In a nutshell, the view is this: Suppose we pay attention to a particular object, say this coffee mug that I am now having before me. The mug sits on a table on which I am typing this paper. It has certain shape, size, color and pattern. Without the table the mug would fall to the ground and shattered. Without the color pigments that make up the various colors on it, no pattern would be possible; without the clay used to mold the mug, the mug would not have been possible either. Furthermore, one could imagine the purpose for which the mug was manufactured. Perhaps it was made in a factory along with millions of other mugs, its shape and size depending on the mold that is used in the factory, and the process of producing it also involves use of energy, which comes from electric power, which was generated from a power plant some distance away using hydroelectric power, and so on. One can then certainly imagine the source of the hydroelectric power to the sun and the wind, as well as the technology used to harness that energy into usable electric power. The web is actually endless. The point is that all these nodes in the web are necessary for there being the particular mug that I have before me now; they are all responsible for its existence. As the mug is an arbitrary object I just happen to choose to talk about, it can stand for any object whatsoever. Thus any object at all stands in a web of relation in the same way as the mug here. This

certainly includes a patented product of intellectual property too, such as a drug with new chemical compound, a piece of software, and so on.

In the *Kaccānagotta Sutta*, Kaccāna came to ask the Buddha what exactly was the Right View (sammādiṭṭhi). The Buddha replied that neither of the extremes, namely to hold that things exist and to hold that things do not exist, represented the Right View. The Right View is represented only by the realization of Interdependence (namely, that ignorance (avijjā) is the condition for thought formation (saṃkhāra); thought formation is the condition for consciousness (viññāṇa), and so on) (SN 12:15; II 16–17, in Bodhi 356). Here is a clear textual evidence that the Buddha equates Emptiness and Dependent Origination. The idea is taken up and elaborated by Nāgārjuna (MMK XV: 7). David Kalupahāna is of the view that the passage here shows that at least on this particular topic the view promoted by Nāgārjuna and that of early Buddhist canonical text appears to be one and the same and that the former's work is essentially a commentary on early Buddhist teaching (See, for example, Kalupahāna 26). However, this view is much disputed by Buddhist scholars.³

We are not entering the debate on how much of the original Theravāda thought available in the Pāli Suttas is actually there in Nāgārjuna. Suffice it to say that Nāgārjuna is aware of the *Kaccānagotta Sutta* and the seminal view there that he further develops and elaborates greatly. What interests us at the moment, however, is that the Mahāyāna and Theravāda at this point seem to be in agreement that the correct description of things in the world, the metaphysics of Buddhism, if one can be allowed to use such a term, is Emptiness and Interdependence or Dependent Origination. The gist of the view, of course, is that one cannot take an individual object to be capable of existing independently on its own without its relation, through the relations of cause and condition, to all other objects out there. This empty and interdependent character also extends to events and action too. Events are also empty and interdependent; an event such as a wedding party certainly has a beginning, a middle and an end, and it

See, for example, a review of Kalupahāna's work by Lang and Garfield's criticism of his view in the introduction to Garfield's own translation of the *MMK*.

certainly relates to many other objects and events. If an event is necessarily empty and interdependent, so is an action. What this implies is that the activity that leads to an invention of a new product or a new method which can be patented must also be empty and interdependent. This means that the activity here is constituted by its relations to many other objects, events, activities that surround it. Thus it does not seem fair that the protection and return promised by the IP regime will belong to the innovator or only a small group of people alone without sharing the benefits to all that that the benefits are actually due.

How This Works Out in Practice

So my argument so far is that, as the Buddhist metaphysical view of Emptiness and Interdependence (or Dependent Origination) covers everything in the world, it certainly covers both the process and the product that is protected by IPR's. A patented product, such as a new medicine, thus is constituted by an entangled web of relations with many other factors in the first place. What is important is that these other factors are necessary for the success of the innovation; without participation of willing human subjects in a series of clinical trials, for example, the development of the new drug could not even get off the ground. Moreover, to recruit these participants, who could actually have come from many different parts of the world, requires a lot of institutional settings and other social, cultural and legal contexts all of which are indispensable. We can imagine this point more clearly if we look back to my example of the mug on the table that I mentioned earlier. A mug is a simple object, and even this simple object has a complex web of relations to many other things and events. Imagine how much more complex the newly developed drug and its clinical trials would be. The point is that since the justification of IP protection is that it brings rewards to those who are involved in developing the new thing which is beneficial to the world, the very concept of "those who are involved" would need to be broadened.

This immediately raises the problem of how exactly one is to measure how much involvement a factor actually has in the process leading up to the patented product. How much, for example, should the drug company owe to an individual research subject who risks her health trying the new drug when it is not fully known what kind of effects on the human body it would actually cause? This is only one factor among millions of others. So how does this proposal work out in practice? Here compassion again as a role to play. What the drug company should adopt is an attitude which is compassionate to the needs and sufferings of everyone in the world. This may sound highly idealistic and impractical, but the idea is quite straightforward. The company should realize that without the participation and the help of many factors the development of the new product would not have been realized. Thus the company should seek out those who are rather directly involved, to the extent that they can be identified, as provide fair compensation to them. This act can also be regarded as an act of dana, or giving, on the part of the coroporation, though it has to be made clear that the motivation for the $d\bar{a}na$ is compassion in the specific sense proposed here. This should include a share of the royalties that would accrue once the drug is released to the market. For example, if the drug depends on a new chemical compound that the researcher has found in a medicinal plant in a rain forest, the tribe that has provided the researcher with the suggestion as to the efficacy of the plant should be taken as a stakeholder in the success of the drug and the benefits shared to them accordingly. Each and every participant in the clinical trials also need to be included similarly.

However, what should the company do for those who cannot be identified but who clearly has a role in the development? Here the idea is that the company should share the benefit of the drug in such a way that the whole community benefit. As the world has become smaller and more tightly compacted, the *community* in question may well span many parts of the globe (but still retaining the sense of being a community). What the company should do in order to be compassionate and fair to the rest of the community who has a stake in the success of the drug is that the drug should be priced in such a way that the rest of the world community can afford it. That is only one thing the company can do; what it can further do is to design a mechanism by which the drug

will be used more effectively. Perhaps the company can engaged in health promotion scheme where the population in certain areas can learn how to improve their health and well being on their own, or it can work with national and local governments on the best health care policy that would benefit the people the most.

This, nonetheless, does not mean that *only* the drug company should be doing things for the global community. The help should be two way, and the global community should be doing something in return for the company too. Apart from enabling the company to gain reasonable profits, an obvious thing to do, the community could a fair environment for the company to operate, through enactment of clear and consistent rules and regulations and participation in the research and development activities. The compassion needs to go both ways.

Objections and Replies

A possible rejoinder to this proposal might be that in disseminating the stakeholders in the IPR's very widely, the innovator, the one who first conceives of the idea, is responsible for the research and who applies for the patent, might lose out because the benefits are spread too thin. The proposal of spreading the benefits around in this way might even look like a tax on the innovator which could result in a loss of incentive for future research and innovation. However, the proposal offered here does not force the innovator to give up his rights to the intellectual property. He can keep his patent, and the patent can be valid for as long as 20 years, depending on how the system is agreed upon. The innovator and the corporation that employs him still enjoys the rights, but they have to recognize that it is not they alone whose work lead to the patented product. Other factors are necessarily involved. In order to create a sustainable world, the holder of the IPR's cannot afford to hold on to their patent papers and sue everybody who infringes upon them even a little,in many cases with good reasons.

Another possible criticism pertains to the intention and the originality of the innovator. If the list of persons and organizations who have a stake in the intellectual property is as large as my proposal suggests, what would be the distinction between the ones who first conceive of the original idea and those whose role seem to be merely incidental, such as facilitating the workspace of the innovator but having no actual role in the process of development itself? For example, what would be the distinction between the team that originally conceives the idea and the building manager who takes care of the material condition of the lab building itself? In a sense the building management team does have a role because without them the experiment would not have been possible. But at least it seems that the roles of the innovators who do the actual experiment and the management team need to be distinguished and this should be reflected on who actually receives the credit for the discovery, and with the credit comes who owns the rights to the intellectual property in question. Or so the objection goes. This objection, however, overlooks one important empirical fact that in most cases of large scale innovation the team of scientists who toil in their laboratories do not end up being the only ones who own the IPR's. On the contrary, they themselves might not own the rights at all as they work for a large corporation, and it is the latter who eventually owns the rights as the patent will be applied in their name. This seems to belie the façade of the Utilitarian Theory which says that it is the innovators themselves who will be rewarded. That would be the case if the innovators work all by themselves without being employed by any corporation. In most cases, however, the rights belong to the corporations themselves and not their employees. In this sense, neither the scientists or the building management team owns the IPR's at all even though both work for the corporation. The point, then, is that if it is possible for the employing corporation to own the rights (after all, the top management at the corporation might not have a hand in the actual experiment and discovery at all), then it should also be possible for larger contextual elements to have a share in the ownership. This does not mean that the corporations will be deprived of their means to profit making, but it means that in order to be true to the spirit of the Utilitarian Theory (which, by the way, is still the dominant theory continually being cited by lawyers and the court), one needs to expand the circle of who actually has a role to play in the discovery. The key concept of compassion from Buddhism helps us clarify the muddle here in that it helps us to see more clearly that everything is connected and thus one cannot claim the credit and the rights to the discovery for oneself alone. We must not forget that compassion is the desire and the action that arises spontaneously when we see that others are suffering. There is no real distinction between ourselves and others, and corporations and those who are involved with IP regime should realize this too.

Conclusion

Therefore, we have two possible scenarios, one where the company holds exclusive legal rights over their patents and charge a high price for them, and the other where the company is compassionate and shares the benefits equitably according to what really is due. It is not difficult to imagine that the latter scenario offers a better chance for a truly sustainable world. For one thing, strictly enforcing IPR's and persecuting everybody will only create backlashes and equally forceful reactions—something that could easily lead to unsustainability and even disruption and violence. If everybody, on the contrary, is compassionate toward one another, then the world will certainly be a much better place.

Acknowledgments

Research for this paper has been partially supported by a grant from the Thailand Research Fund, grant no. BRG5380009. Thanks also to Dr. Kamhaeng Visutthangkul for discussion and comments on an earlier draft of the paper.

Abbreviations

DK Dhaniya Kumbakāraputta

SN Saṃyutta Nikāya

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