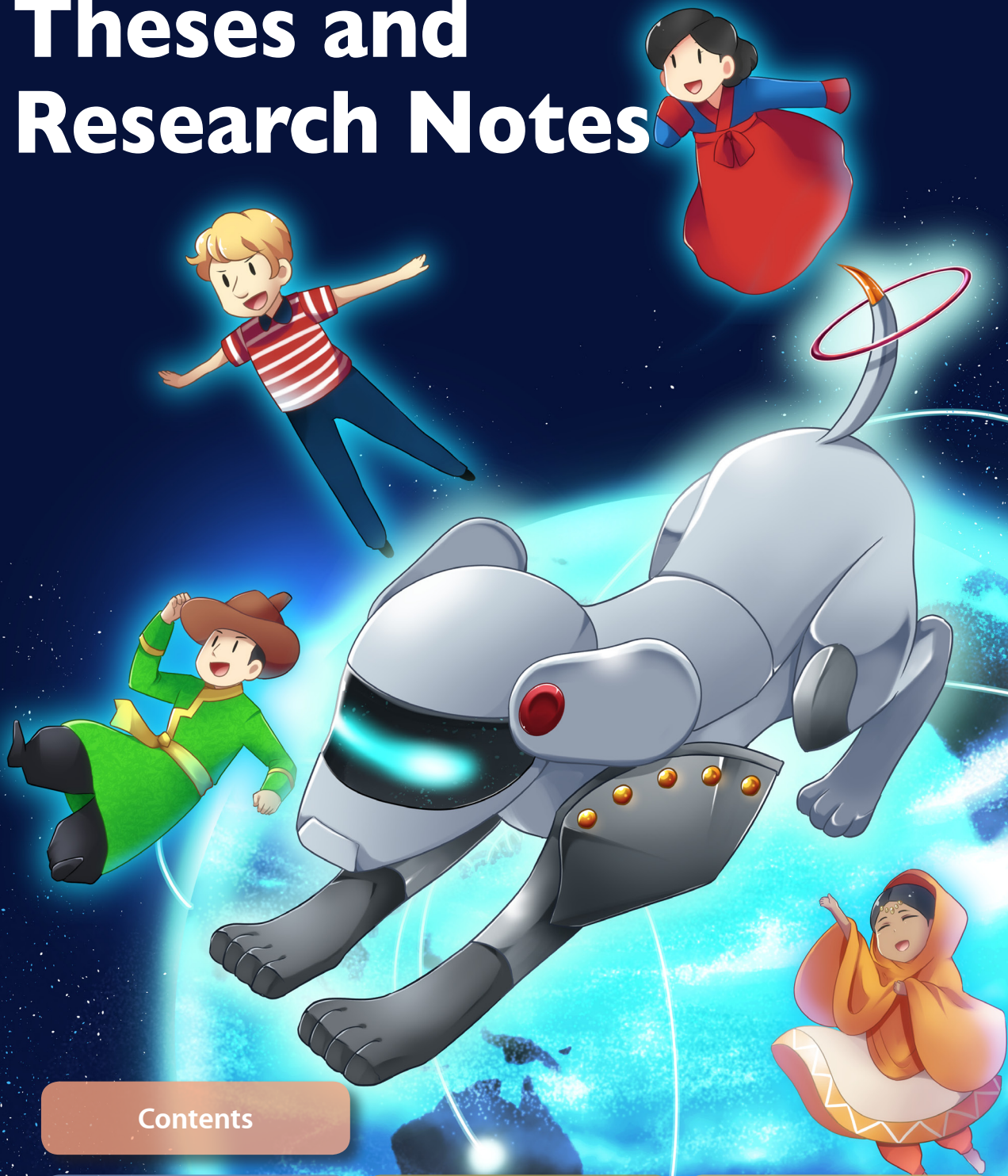# JICE Collection of Theses and Research Notes

JICE

Share knowledge and experience.
For our world. For the future.
JAPAN INTERNATIONAL COOPERATION CENTER

Contents

JICE Collection of Theses and Research Notes

Special Contribution

Testing Europe as a Model of Regional Integration : A Perspective from Ireland

Naonori Kodate

Assistant Professor, School of Social Policy, Social Work and Social Justice University College Dublin, Ireland

Introduction

Despite the difference in size between the countries (e.g. economy, demography and labour market), Ireland and Japan are both islands, with a unique strategic position in Europe and Asia respectively, at a time of rapid global geo-political shift. Japan is where I originally come from, and Ireland is where I am currently based.

Last year was the 60th anniversary of diplomatic relations between the two countries, and I was extremely fortunate to lead a university team in organising numerous cultural and academic events in my affiliation on the campus, out in the community in Ireland and also in Japan. Some of these events featured themes such as robotics-aided eldercare (social policy/engineering/nursing), Patrick Lafcadio Hearn (literature), extreme ultraviolet source development (physics), infectious diseases (veterinary medicine), Abenomics (economics), wartime diaries (history), pop-culture diplomacy (international relations), women leaders in science and society (science/gender studies), Lesson Study in mathematics (education/ mathematics), board games, language, cuisine, taiko drumming (music) and rugby (sport). The year 2017 became an important year for us to look back on the 60-year long history and at ongoing developments in our friendships both individually and collectively.

The Japan Center for International Cooperation (JICE) has been one of the great supporters of the bilateral relationship through its involvement in the Youth Speech Contest in honour of Lafcadio Hearn (Koizumi Yakumo), annually held in Matsue City. The JICE team paid a special visit to Dublin in 2016, exhibiting at Experience Japan, the largest Japan-related cultural event in Ireland. With various links and partnerships being forged and flourishing, the relationship between the two countries is becoming closer and deeper, despite the great physical distance, and the ebb and flow in their respective economies. Numerous examples can be found as

evidence of positive results emanating from international cooperation.

In recent years, however, there have been negative reactions in the world towards globalisation. They manifest themselves in such forms as the rise of populism and a growing sense of apathy. These have shifted our attention away from transnational and regional cooperation to national self-interest and protectionism. In Europe, the United Kingdom of Great Britain and Northern Ireland (UK) voted in favour of leaving the European Union (EU) by a narrow margin on 23 June 2016. With the exception of Emmanuel Macron and his new political party's victory at the French Presidential election in May 2017 and subsequent legislative elections in June, many European countries, including Germany, are now faced with opposition towards the further integration of Europe. In the last ten years, Europe has been challenged by several crises such as the European debt crisis and refugee crisis. A series of terrorist attacks also highlighted the weaknesses of coordinated actions at European and international level.

The change in political leadership in the United State of America (USA) signalled a similar pattern of shift in foreign policy and the balance of power. As a result, while economic internationalisation deepens interdependences amongst a variety of actors (e.g. transnational corporations, NGOs), nation states began to reassert their claims over their national cultures and territories. This is a dilemma that poses many questions to countries including Japan and Ireland.

Looking eastwards from the perspective of the western edge of Europe (Ireland), we quickly discover that the emergence of China as a global superpower is another sign of the geo-political shift, supporting the idea that the 21st century will be marked by Asian dominance. The One Belt One Road (OBOR) Initiative exemplifies China's

Special Contribution
Testing Europe as a Model of Regional Integration
: A Perspective from Ireland

JICE

much greater role and influence in global affairs. Many European countries including Ireland have stepped up their efforts to strengthen their economic and trade relations with China, striking deals both bilaterally and collectively through various fora such as the EU-China Summit. The recent visit to China by the British Prime Minister Theresa May (Jan-Feb 2018) showcases the importance of the UK-China bilateral relations. The proposed areas for further cooperation and expansion of investment include finance, agriculture and education. The significance of this relationship and its associated risks will be more widely recognised, as the expected date (the end of March 2019) for UK's exit from the EU (Brexit) approaches .

Yet it is not only China but also South Korea, Japan and other Asian countries, which the EU has been seeking to strengthen its ties with. The EU-South Korea Free Trade Agreement has been applied since 2011, producing positive effects in their trade relations (European Commission 2014). In December 2017, the EU and Japan finalised a 4 year-long negotiation for a trade agreement (commonly called EPA (EU-Japan Economic Partnership Agreement)). Also in 2017, with the Association of Southeast Asian Nations (ASEAN), the EU resumed the free trade negotiation, which started in 2007 but was paused in 2009. The Eurasian relationship is expected to grow closer and deeper through these multilateral partnerships and bilateral relations. The cooperation is not restricted to business and economy, and the interactions in the spheres of culture, education and research have also been on the increase (Vandewalle 2015).

While the EU is actively pursuing one type of international cooperation (free trade agreement) at the moment, another type of cooperation (pooling of sovereignty) is coming under increasing scrutiny and criticism. Citizens' scepticism is growing towards the EU's democratic legitimacy for further deepening its integration in policy sectors such as defence and security, social protection and healthcare. The pooling of political and economic sovereignty as a model of regional integration is now being critically challenged.

Against this background, the short research note revisits the EU by tracing its evolution using two conceptual frameworks (intergovernmentalism and supranationalism). The EU has provided us with three possible models (free trade arrangement, single market, and common currency area) for regional integration (Inomata 2013), while going further beyond economic integration.

The paper looks at the interactions between the EU and one of its member state, asking what the European integration process has meant to Ireland. The question is concerned with the potential exit of Ireland (Irexit) from the EU, following Brexit. Would Ireland, with strong historic and economic ties with the UK, be the next to leave the EU? As Ireland's neighbouring country and close trading partner is preparing its departure from the European Single Market, some expect a form of 'domino effects', arguing that Brexit is only the beginning of the end to European integration, as we know it. Even if other member states do not follow the UK, the EU may lean towards a more strongly state-centric (intergovernmental) model of regional collaboration in the future, based on free trade agreements. What factors could influence Ireland's decision regarding its future relationship with Europe?

The first section describes the history of European integration followed by a section on Ireland in the European context. The third and last section looks at potential implications of Brexit on Ireland and its relationship to European integration.
.
European Union as a model of regional integration

European integration has been regarded as one unique grand project, becoming as it did one of the models for international cooperation. It dates back to the Treaties which established the European Coal and Steel Community (ECSC), the European Economic Community (EEC) and the European Atomic Energy Community (known as 'Euratom'). The treaties were aimed at achieving lasting peace by way of creating a common market for natural resources amongst its member states. The root causes of many devastating wars in and around the Ruhr region led

to the collective realisation that fierce competition over those natural resources had to be contained and managed better.

The Treaty establishing the European Coal and Steel Community (ECSC), or Treaty of Paris, was signed on 18 April 1951 and came into force on 25 July 1952. For the first time, six European States ('Inner Six': France, Germany, Italy and the Benelux (Belgium, the Netherlands and Luxembourg)) agreed to work towards integration. Since then, the main thrust for European integration has primarily been achieved through the European Community/Union and its policies, although some other regional organisations such as the Council of Europe and the European Free Trade Association (EFTA) have existed in parallel.

Regional integration has been an important facet of globalisation, and economic, political and social development. The core element in the integration process has been primarily driven by tangible benefits including funding, investment and the goal of economic growth, symbolised by the establishment of the Customs Union and Common Market.

Intergovernmentalism is one way of looking at regional integration. It is underpinned by the idea that national governments are the main actors who decide and agree on specific fields for negotiation while retaining their sovereignty. Therefore, integration is driven by the choice of national governments to maximise their countries' self-interest, as the primary purpose of the European project is to strengthen the nation-state framework, rather than weaken it (Milward 1992; Tsebelis and Garrett 2001).

However, since the signing of the Single European Act (1986) and the Maastricht Treaty (1991), it appeared more authority began to be delegated from national governments to supranational bodies. Already in the 1950s, the concept of spillover (Haas 1958; Schmitter 2005) was used to explain the pooling of sovereignty (e.g. the ECSC), which could contradict the preservation of national interests in a conventional sense. It helps explain

why some cooperation in specific policy sectors could lead to wider integration, even 'spilling over' into political spheres. Supranationalism became a popular theory to describe the evolution of the ECSC, Euratom and EEC into the European Community. Neo-functionalism formed the basis for supranationalism, in which a separate and autonomous political entity at European level is assumed.

Figure 1 below shows these two main strands of the conceptual lens with which regional integration can be analysed.

Figure 1. Two strands of conceptual lens for understanding European integration
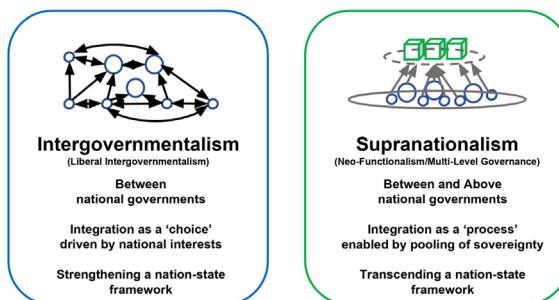
(Source: University of Portsmouth, European Studies Hub. Adapted & modified by the author. A circle signifies a nation state, while a box means an EU institution.)

Figure 1. Two strands of conceptual lens for understanding European integration

The strand in intergovernmentalism was later developed into Liberal Intergovernmentalism by Moravcsik (1998), while supranationalism evolved into the framework of Multi-Level Governance (Hooghe and Marks 2001). The latter focuses on the dispersion of authority across multiple levels of political entities, including sub-national bodies, local governments, and non-state actors such as NGOs.

Into the 2000s, the European Economic and Monetary Union (EMU), Eastern enlargement, Common Security and Defence Policy (CSDP) had much greater impacts on the shaping of the European 'polity' and gave the impression that the European project would bring about a sense of unity, and formation of a European identity, as opposed to each 'national' identity (e.g. French, Irish and

Catalonian).

However, as demonstrated by opinion polls, people in Europe have constantly opposed the EU's involvement in social redistribution programmes (Hix 2008). This is why a mechanism called the Open Method of Coordination was devised as an instrument to overcome the opposition and start sharing best practice, benchmarking and harmonising different policies in the areas where the EU has no legislative powers (Chalmers and Lodge 2003, Alber 2006). These are primarily social policies: employment, social protection, immigration, education, health and long-term care, and environmental affairs.

The next section will examine Ireland's relationship with Europe. Ireland is an interesting case. On the one hand, the country has no strong backlash against globalisation and Europeanisation, and could continue to be pro-integrationalist. On the other hand, as uncertainty and predicted negative impacts (both economically and socially) loom in the post-Brexit era, Ireland could become a more reluctant player in international cooperation.

Ireland in Europe

Ireland is a country located in the North West of Europe (see Figure 2). It has a population of 4.6 million, and is akin to Hokkaido in Japan in terms of population and surface area. In many ways, its political and economic trajectories (including complex Anglo-Irish relations, and exceptionally rapid economic growth between the 1990s and mid-2000s) have been unique in western Europe.

The country has thus far escaped many contemporary 'issues'. For example, it does not have a far-right populist political party with an anti-immigration message. The country's current economic performance is rather strong (ESRI 2017), unlike those in Southern European countries with very high youth unemployment rates. Table 1 shows that Ireland is a trading nation, and its GDP per capita is one of the highest amongst the EU member states.

Table 1. Basic data: Ireland, the EU and Japan

	Ireland	EU	Japan
Population (million persons)	4.8	511.8	127.3
GDP per capita, 2016 (USD current PPPs) (World Bank)	63862	32234	38901
Trade in goods and services, Exports, % of GDP, 2016 (OECD)	121.6	44.0	16.1
Trade in goods and services, Imports, % of GDP, 2016 (OECD)	99.6	40.5	15.1
Elderly population aged 65 and over (%)	12.7	18.4	25.1
Foreign-born population, Total, % of population, 2013 (World Bank)	16.4	10.7	1.6

(Sources: CSO; OECD; World Bank)

Figure 2. Map of Europe (the island of Ireland encircled)

Situated on the periphery of Europe, psychological proximity of Ireland to Europe has been questioned in the past. In 2000, the then Enterprise Minister of Ireland, Mary Harney TD observed that Ireland was a lot "closer to Boston than to Berlin". Her remark reflects Ireland's close relationship with the United States of America (USA), primarily based on common ancestral ties through immigrations in the past. Approximately 10 percent of the total population in the USA reported Irish ancestry in 2013. What is also hinted at in her remark is that Ireland may share more in common with the USA and other English-speaking countries such as the UK, Australia, Canada and New Zealand than the Continental European states.

However, because of Ireland's complex past with its neighbouring country of the UK, and its rich cultural heritage (music, dance, Gaelic games, storytelling, folklore and literature), Ireland has sought to play active roles within multilateral diplomacy. Ireland became a republic when the Republic of Ireland Act 1948 (No. 22 of 1948) was passed. This meant that Ireland was no longer a member of the British Commonwealth. In 1955, Ireland joined the United Nations.

Ireland has been supporting multilateral frameworks, through which it actively promotes democracy, human rights and the rule of law (Allain and Mullally 2007). Ireland has been often dubbed a 'middle power', despite being a small economic and military power (Moriarty and Massa 2012). Likewise, Ireland has been committed to European integration. Ireland was one of the founding members of the Organisation for Security and Cooperation in Europe (OSCE) and the Council of Europe.

Ireland joined the European Economic Community (EEC) in 1973, together with the UK and Denmark. Compared with the reluctance and resistance shown by the British and Danish people towards their accession, the willingness of Irish people joining the EEC was remarkable. Out of those three countries, Ireland is the only one who joined the common currency (Euro) in 2002 (Laffan and O'Mahony 2008).

Domestically, the accession of Ireland to the EEC brought about the elimination of the so-called Marriage Bar, which prohibited many women from continuing in employment in the Civil Service, local authorities and health boards as soon as they married. Many therefore associate Ireland's entry to the EEC with social change and modernisation (Redmond and Harford 2009).

Table 2 shows Ireland's voting records at EU-related referenda, and some agendas during Ireland's EC/EU Presidencies. Generally, Irish voters have been in favour of the EU's initiatives and treaties, except for two rejections in the 2001 and 2008 referenda. It was argued that one reason for this rejection was that Ireland's traditional military neutrality might be compromised if the treaty was ratified.

Table 2. Chronology of Ireland's voting record in relation to European integration

1972	Ireland voted to join the European Community with 83 percent in favour
	Turnout: 71 percent
1973	Ireland joins the EEC with the UK and Denmark (Norway voted against joining).
1975	Irish Presidency of the European Community: Taoiseach Liam Cosgrave TD oversaw the first Lomé convention, a trade and aid agreement between the EU and African, Caribbean and Pacific countries. The European Regional Development Fund was created.
1979	Irish Presidency of the European Community: Taoisigh Jack Lynch / Charles Haughey TD. The first election to the European Parliament was held. The European Monetary System (EMS) was established.
1984	Irish Presidency of the European Community: Taoiseach Garret FitzGerald TD. The EU signed the Trade and Economic Cooperation Agreement with China.
1987	70 percent of the Irish electorate voted in favour of the Single European Act
	Turnout: 44 percent
1990	Irish Presidency of the European Community: Taoiseach Charles Haughey TD supported German Reunification.
1992	69 percent voted in favour of the Maastricht treaty which paved the way for the creation of the European Union and the introduction of the euro currency
	Turnout: 57 percent
1996	Irish Presidency of the European Union: Taoiseach John Bruton TD presided over the discussions leading to the Stability and Growth Pact, which establishes macroeconomic parameters for countries participating in the Euro.
1998	Ireland ratified the Amsterdam Treaty on further European integration, with 62 percent voting in favour
	Turnout: 56 percent
2001	Irish voters rejected the Nice Treaty on EU reform (with 54 percent voting against).
	Turnout: 35 percent
2002	The common currency Euro was launched in 12 countries including Ireland. 63 percent of voters endorsed the Nice treaty in a second referendum.
	Turnout: 50 percent
2004	Irish Presidency of the European Union: Taoiseach Bertie Ahern TD brokered an agreement among the then 25 EU Member States on the wording of the EU Constitution.
2005	French and Dutch voters rejected the Nice Treaty in referenda. The charter stalled.
2008	Ireland rejected the Lisbon treaty with 53 percent against.
	Turnout: 53 percent
2009	67 percent of the Irish electorate voted in favour of the Lisbon Treaty. Ireland's military neutrality and rules on abortion were given assurances before the second referendum.
	Turnout: 59 percent
2012	60 percent of the electorate voted in favour of the European fiscal compact.
	Turnout: 51 percent
2013	Irish Presidency of the European Union: Taoiseach Enda Kenny TD brokered a final agreement on behalf of Member States on new rules to stabilise Eurozone economies.

In 2002, the second referendum was held and the rejection was overturned. Again in 2008, the Lisbon Treaty was rejected by a narrow margin, and the second attempt in 2009 secured the majority in favour of the treaty. Therefore, it is fair to argue that the Irish electorate's attitudes towards the EU have remained positive until 2001, and since then has had ups and downs.

The remainder of this section will look at Ireland's links with the EU, in particular in relation to economy, identity and the Brexit deals.

Ireland's entry to the EEC in 1973 coincided with the first Oil Shock and the global economic slowdown and lower productivity. Although the Irish economy continued to suffer from long-term unemployment and structural problems, the Common Agricultural Policy (CAP) in Europe helped Irish farmers and those engaged in agri-business. In manufacturing, a substantial increase in employment in foreign-owned industry was due to the accession to the EEC. Several factors have been reported to have positive impacts on the period of rapid economic growth called the Celtic Tiger (from the mid-1990s to the late-2000s). These are airline deregulation in 1986, a large increase in FDI flows into and within Europe, and the doubling of the EU Structural and Cohesion Funds (regional aid for infrastructural projects) in 1989 (Barry 2003: 403). Despite strongly positive economic benefits that the EU brought to the Irish economy, its euro membership is sometimes associated with low interest rates which resulted in the housing bubble and subsequent crash in the 2000s (Whelan 2013).

In the past three decades, the Irish economy has experienced a rollercoaster of highs and lows. Its property bubble collapsed in 2008 and the deepened economic crisis led to requests for financial assistance from the EU, the International Monetary Fund (IMF) and other EU Member States. A package worth €85 billion was negotiated, on the condition that the Irish budget would be closely monitored by the Troika (European Commission, European Central Bank and the IMF) on a regular basis to ensure that financial conditions were met.

Although the spectacular growth in the national economy features prominently in the discussion of Ireland's relationship with the EU, economy is not the only reason for Ireland to remain committed to the European project (Quinlan 2015). Irish membership of the EU has equipped Ireland with a new dimension in which the country can reshape its own identity, independently of its past with the UK.

The late Peter Sutherland was one of the Irish persons appointed to the European Commission in 1985, and had responsibility for competition policy, which initially included education. It was he who proposed the establishment of the ERASMUS (EuRopean Community Action Scheme for the Mobility of University Students) programme, which allows students in European higher education institutions to study in other EU member states (Bruton 2018). The programme has been successfully run in the past 30 years, and it has been expanded to include sport exchanges, exchanges between European universities and those outside Europe (e.g. ERASMUS+ICM), providing many people with opportunities to study and research abroad. In Ireland, more than 88,000 Irish students and teachers have benefited from this mobility scheme.

While Wolff, a political scientist predicts the "Erasmus generation" (Costello 2015) will yield a new cadre of pro-European citizens in the future, Polyakova and Fligstein (2016) reported that the European identity has not increased much in the past 20 years. Despite the argument that the financial crisis and subsequent austerity measures turned some Europeans against the EU, the authors found that the EU integration project 'pushed citizens to value their national identities more' (p. 60), even before the Eurozone crisis.

Dustmann et al. (2017) examined the level of trust placed in the European Parliament, compared with that placed in respective national parliaments across European countries. Alongside countries such as Greece, Spain, Italy and Portugal, in Ireland's case, 'trust in the national parliament was consistently lower than trust in the European

Special Contribution
Testing Europe as a Model of Regional Integration : A Perspective from Ireland

Parliament' (p.63). However, during the Eurozone crisis, attitudes became less sympathetic, and the level of trust in the European Parliament dipped. 'The turn against the European Union is particularly pronounced (…) in Italy, Ireland, Finland, Germany (which started from a very pro-EU level), Denmark, France and the United Kingdom' (p.34). Vote shares for anti-EU parties at European Parliament elections in Ireland nearly doubled in 2014 (p.36).

Their findings combined with the Eurobarometer surveys could explain in part the recent resurgence of national identities and populist parties across many European countries. How do Irish people perceive themselves then?
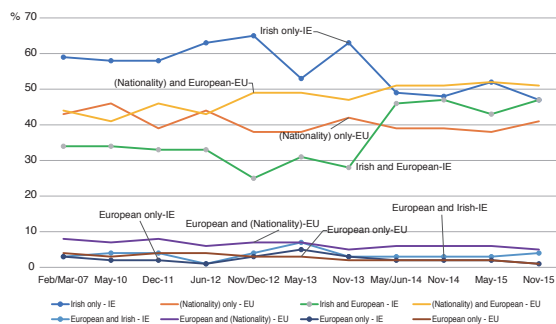

Figure 3-1. National and European identity: "Do you see yourself as…?" between 2007 and 2015 (Ireland (IE) and EU average (EU)) (Source: Eurobarometer. Adapted by the author.)

Figures 3-1 and 3-2 demonstrate that Irish people have a stronger sense of national identity (i.e. feeling Irish) than the average European citizen, although since mid-2014 the gaps have narrowed. The numbers of Irish people who feel both Irish and European at the same time barely reach 50 percent.
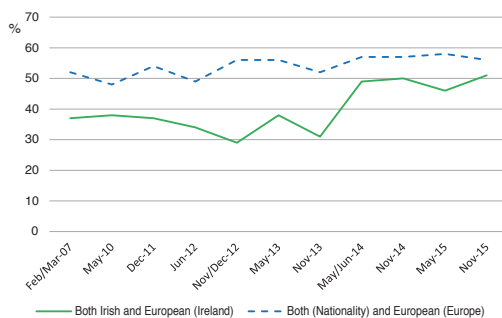

Figure 3-2. Combined figures of those who feel both "Irish/Nationality and European" between 2007 and 2015 (Source: Eurobarometer. Adapted by the author.)

As seen above, in the areas of economy and identity, the data paint a mixed picture of the relationship between Ireland and Europe. Recent changes show some signs of negative feelings towards the EU (e.g. rejections of the Nice Treaty, and increased votes for anti-EU parties), yet more people feel both Irish and European. The final section will look at another dimension to Ireland's place in Europe, which must be closely monitored amid Brexit negotiations.

When Ireland undertook the Presidency of the European Community back in 1989, the then Taoiseach Charles Haughey mentioned that 'German reunification was a matter for the German people… and *because of our own history* we were naturally inclined towards any wish by the German people to come together in unity…' (O'Driscoll 2018: 231. Italicised by the author). In supporting German reunification, he stressed the importance of further European integration and unity. He then alluded to another of Ireland's characteristics, namely, that of a 'divided' nation.
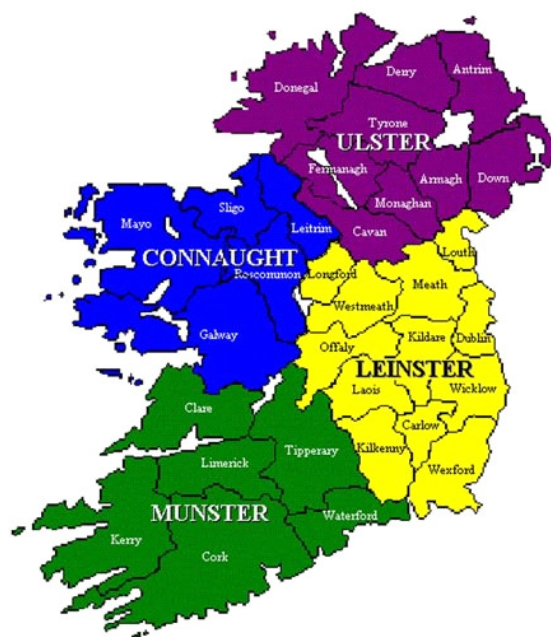

Figure 4. Map of the island of Ireland: 4 provinces and 32 counties (Source : La Historia con Mapas website)

Six counties north of the border have formed part of the UK since 1921. The island of Ireland is divided into 4 provinces (cúige) (Connaught, Leinster, Munster and Ulster), and 32 counties (contaetha na hÉireann). Northern Ireland (NI) roughly overlaps with the Province of Ulster, although three of the counties in that province (Monaghan, Cavan and Donegal) were situated in the Republic of Ireland after partition.

Peculiarly, even after the establishment of the Irish Free State in 1922, open borders were maintained. This relates to the Common Travel Area (CTA), which comprises the UK, Republic of Ireland (ROI), Isle of Man, and Channel Islands. Depending on the results of the UK-EU withdrawal negotiations, the CTA may have to be removed in 2019. The division between NI and ROI would then, for the first time in modern history, be marked sharply by restrictions on freedom of movements in goods, services and people. At present, nearly 6,500 and 8,300 commute daily between NI and ROI respectively (CSO 2017), so that approximately 15,000 people could be affected by some form of national border. As transportation of commodities, ingredients and services will also be heavily affected, the economic impact is expected to be negative.

Some are apprehensive over whether Brexit might endanger the peace process (e.g. the Good Friday Agreement), by potentially activating cross-border operations by paramilitaries. Furthermore, the border issue is very critical not only for the UK-Ireland relationship, but also for Ireland in Europe.

Following paramilitary ceasefires in 1994, the EU initially founded the PEACE Programme in order to make positive contributions to the promotion of cohesion between unionist and nationalist communities. Between 2014 and 2020, the EU decided to finance cross-border initiatives through the European Regional Development Fund. The PEACE IV Programme (worth €270m) is designed to support peace and reconciliation projects in Northern Ireland and the Border counties of Ireland (Cavan, Donegal, Leitrim, Louth, Monaghan and Sligo) (SEUPB website).

In June 2016, the majority (56 percent) of NI people voted to remain in the EU. However, an unexpected result from the June 2017 snap general election brought a pro-Brexit political party in NI to centre stage of the Brexit negotiations. The minority Conservative government made a Confidence and Supply pact with Democratic Unionist Party (DUP). The DUP is demanding a 'no border between Great Britain and NI' solution.

On the other hand, the ROI government, led by Taoiseach Leo Varadkar TD, is preoccupied by the border issues between NI and ROI. The Irish government is strongly arguing for a 'no hard border between NI and ROI' solution. Being both the youngest and the first person from a minority ethnic background to hold the office, the current Taoiseach represents a new type of Irish/European politician, and perhaps the "Erasmus generation". During his speech in the European Parliament on 17 January 2018, he stated 'the European ideal has always been inspired by a spirit of optimism and a belief in a better future. That ideal has been tested, but has not been broken. We have a renewed appetite to face the challenges of the future.' (European Parliament website.) He switched between four languages (English, Irish, German and French) in this speech, which amply highlighted his desire for Ireland to remain committed to the European project.

The future of the island of Ireland in the post-Brexit era remains uncertain at the time of writing this research note. Many things will (have to) become clearer, as the negotiations progress throughout the year. One of the unintended consequences of the Brexit referendum was to shed light on the multi-layered nature of European integration, and the way in which the UK and ROI were held together as two separate nation states within the European polity. Now that the UK decided to leave the EU, this top layer could be removed, and the border issue has resurfaced between the two countries. Unexpectedly, Brexit underscored the EU's origin, which itself stemmed from a peace process, and its function as a confidence building mechanism.

Special Contribution
Testing Europe as a Model of Regional Integration : A Perspective from Ireland

JICE

Concluding remarks

European integration in the aftermath of World War Two commenced not as a purely economic project, but as a peace-building operation amongst nation states, with a particular focus on the border region between Germany and France. It is no surprise, then, that when a member state decides to quit the project, people fear that a peace process in another border region can be jeopardised.

Ireland joined the group in the first wave of its enlargement, together with the UK and Denmark in 1973. Therefore, the European Community/Union has provided Ireland with a useful umbrella where it could develop its own identity, independently of the UK, while maintaining its trading partnership with the UK and shared old customs such as the CTA. As time goes by, the EU embarked on very ambitious programmes, evolving from more of an intergovernmental organisation to a supranational entity. It developed its capacities influencing each member state, from areas spanning economy, trade, employment and security.

Ireland, as a country with relatively small economic and military clout, has been a proactive player in multilateral diplomacy, yet following a unique trajectory with rapid economic growth and a modernisation agenda, while retaining a strong national identity. As a 'divided nation', it faces a unique set of challenges, this time, posed by centrifugal forces including Brexit and an emerging division between those left-behind by economic and social change and those who benefit from globalisation and international cooperation. The issue of Ireland's open economy, relying heavily on its low corporation tax to attract multinational firms, remains unresolved.

In the context of the challenges now arising in the post-Brexit world, the search for new and alternative markets as well as alliances is a clear priority for countries including Ireland. As a way of mitigating current potentially adverse circumstances, new opportunities throughout Asia will be seized, and further links between Europe and Asia will be found and strengthened. However, European integration, as a multilateral process with supranational institutions, has its own dynamics, and will continue to offer us a fascinating insight into models of regional integration (Moone and Andreosso-O'Callaghan 2017), which involves a balancing act between realpolitik and consensus building through the diplomacy of nation states and other actors. Ireland's experience is an interesting case for countries like Japan, Korea (another 'divided' nation on the Korean peninsula), and other Asian countries.

Clearly, the ultimate goal of achieving lasting peace is something that we would all find critical as a universal theme for regional integration. As a very ambitious and unique model of regional integration, the past, present and future of European integration will continue to be closely watched, and lessons will be drawn and transferred within and beyond Europe.

Acknowledgements

References

Alber, J (2006) The European Social Model and the United States. European Union Politics 7(3): 393–419.

Allain, J. and Mullally, S. (eds.) (2009) The Irish Yearbook of International Law, Volume 2. Oxford and Portland, Oregon: Hart Publishing.

Barry, F. (2003) Irish Economic Development over Three Decades of EU Membership. Czech Journal of Economics and Finance, 53(9 -10), 394-412.

Bruton, J. (2018) Peter Sutherland: A gifted administrator and humanitarian. (The Irish Times, 8 January 2018).

Charmers, D. and Lodge, M. (2006) The open method of co-ordination and the European welfare state. C. Pierson, F.G. Castles, I.K. Naumann (Eds) The Welfare State Reader (2nd Edition), Cambridge and Malden, MA: Polity Press, 289-308.

Costello, S. (2015) Erasmus has sown seeds of a truly European identity: For many young people home is a button refreshed every 10 minutes on Facebook (The Irish Times, 6 July 2015).

CSO (Central Statistics Office). http://www.cso.ie/en/databases/ (accessed 5 February 2018).

CSO (2017) Census 2016 Profile 6 - Commuting in Ireland. http://www.cso.ie/en/csolatestnews/presspages/2017/census2016profile6-commuting in ireland/ (accessed 5 February 2018).

Dustmann C., Eichengreen B., Otten S., André S., Tabellini G., Zoega, G. (2017) Europe's Trust Deficit: Causes and Remedies. London: Centre for Economic Policy Research.

ESRI (The Economic and Social Research Institute) (2017) Strong economic growth and declining unemployment forecast for 2017 and 2018. 13 December 2017. https://www.esri.ie/news/strong-economic-growth-and-declining-unemployment-forecast-for-2017-and-2018/ (accessed 12 February 2018)

European Commission (2014) Report from the Commission to the European Parliament and the Council. Annual Report on the Implementation of the EU-Korea Free Trade Agreement. http://trade.ec.europa.eu/doclib/docs/2014/march/tradoc_152239.PDF (accessed 12 February 2018)

European Parliament (2018) 'Ideal of creating a better future still inspires the EU', says Irish Taoiseach (Plenary Session, 17-01-2018) http://www.europarl.europa.eu/news/en/press-room/20180112IPR91628/ideal-of-creating-a-better-future-still-inspires-the-eu-says-irish-taoiseach (accessed 12 February 2018).

Haas, E. (1958) The Uniting of Europe: Political, Social, and Economic Forces, 1950-1957. Stanford: Stanford University Press.

Hix, S. (2008) What's Wrong with the European Union and How to Fix it. Cambridge and Malden, MA: Polity Press.

Hooghe, L. and Marks, G. (2001) Multi-Level Governance and European Integration. Oxford: Rowman & Littlefield Publishers.

Inomata, S. (2013) Different Models for Regional Integration: Lessons from Total Factor Productivity in Europe. ADBI Working Paper Series. No.451.

Laffan, B, and O'Mahony, J. (2008) Ireland and the European Union. Palgrave Macmillan.

La Historia con Mapas. http://www.lahistoriaconmapas.com/atlas/country-map05/map-ireland-ulster-leinster-munster-connaught.htm (accessed 10 February 2018).

Milward, A. (1992) The European Rescue of the Nation-State. London and New York: Routledge.

Moone, W. and Andreosso-O'Callaghan (eds.) (2017) Regional Integration – Europe and Asia Compared. Abingdon & New York: Routledge.

Moravcsik, A. (2002) In Defence of the Democratic Deficit: Reassessing Legitimacy in the European Union, Journal of Common Market Studies 40/4: 603-624.

Moriaty, B. and Massa, E. (2012) Human Rights Law (4th Edition). Law Society of Ireland.

O'Driscoll, M. (2018) Ireland, West Germany and the New Europe, 1949-1973: Best friend and ally? Manchester: Manchester University Press.

OECD. https://data.oecd.org/trade/trade-in-goods-and-services.htm (accessed 18 February 2018)

Polyakova, A. and Fligstein, N. (2016) Is European integration causing Europe to become more nationalist? Evidence from the 2007–9 Financial Crisis. Journal of European Public Policy,23: 60-83.

Quinlan, S. (2015) "Identity formation and political generations: Age, cohort, and period effects in Irish elections." In Elkink, J.A. and Farrell, D. (Eds) The Act of Voting: Identities, Institutions and Locale, 255-275. London; New York: Routledge.

Redmond, J. and Harford, J. (2009) "One man one job": the marriage ban and the employment of women teachers in Irish primary schools. Paedagogica Historica - International Journal of the History of Education. 46(5): 639-654.

Schmitter, P.C. (2005) 'Ernst B. Haas and the Legacy of Neo-Functionalism' Journal of European Public Policy 12(2): 255-272.

SEUPB (Special EU Programmes Body). PEACE IV Programme Overview. https://www.seupb.eu/piv-overview (accessed 10 February 2018).

Tsebelis, G. and Garrett, G. (2001) The Institutional Foundations of Inter-governmentalism and Supranationalism in the European Union. International Organization, 55, 2: 357-390.

University of Portsmouth, European Studies Hub website. Module 4: Theorising the European Union. http://hum.port.ac.uk/europeanstudieshub/learning/module-4-theorising-the-european-union/3-intergovernmentalism-liberal-intergovernmentalism/ (accessed 10 February 2018).

Vandewalle, L. (2015) The increasing role of the EU's culture, education and science diplomacy in Asia. http://www.europarl.europa.eu/RegData/etudes/IDAN/2015/549050/EXPO_IDA(2015)549050_EN.pdf (accessed 14 February 2018)

Whelan, K. (2013) Ireland's Economic Crisis: The Good, the Bad and the Ugly. Paper presented at Bank of Greece conference on the Euro Crisis, Athens (24 May 2013).

World Bank. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD (accessed 10 February 2018).

Lessons extracted from the training "Young Leader Programs" in Developing Countries
Case Study of JICA Training "Young Leader Program"-4 years-

Masako Kishimoto

Vice President of Japan International Cooperation Center(JICE)

Abstract

In FY2007, Japan International Cooperation Agency (JICA) modified the training contents of its Youth Invitation Program and restarted the program under a new title "Young Leader Programs"[1]. By the end of FY2017, 12,003[2] number of participants from 121 countries was planned to attend the program.

Japan International Cooperation Center (JICE), along with other partners, conducted Ex-Post Evaluation Survey of JICA Knowledge Co-Creation Programs (Group and Region Focus & Young Leaders) between FY2013 and FY2016. Regarding the Knowledge Co-Creation Programs (Young Leaders) ("Young Leader Programs"), the survey targets were 5,553 participants between FY2010 and FY2014, out of which 590 returned their questionnaire effectively. In this study, I re-analyzed the overall outcomes of Young Leader Programs by using the data of these previous surveys and aim to apply the learned insights and lessons to other training programs implemented by JICE.

As results of the study, the overall outcomes of Young Leader Programs were highly evaluated. Programs were designed with high-level contents and supporting elements to meet participants' request. Through training programs, participants gained specific knowledge and skills required to solve developmental issues in their countries. Additionally by coming to Japan, participants had opportunities to be exposed to Japanese tradition and culture, which helped deepen their understanding about Japan, and enhance a positive perception toward Japan. The outcomes from non-lecture activities and experiences were proved to be significant. They also met the objectives of JICA Knowledge Co-Creation Programs.

The insights and lessons extracted from this study include: 1) It is important to match the training contents with the required training needs of target countries; 2) While high-level contents are required, elements that help enhance understanding Japan and Japanese people are highly evaluated as well. As a bridge between participants and Japanese people, the role of training managers and coordinators is considerably significant; 3) It is necessary to include the follow-up plan into the training curricula to support participants' activities after they return to their country; and 4) In addition to implementing training programs, JICE needs to establish a system to evaluate these programs effectively.

---

1 The title was changed again in July 2015, to JICA "Knowledge Co-Creation Programs (Young Leaders)".

2 www.jica.go.jp/

研修事後評価からの教訓
—JICA 青年研修事後評価を事例（４年間）として—

一般財団法人　日本国際協力センター
常務理事　**岸本昌子**

１．はじめに

　JICA は、1984 年、将来の国づくりを担う開発途上国の青年が当該分野の研修を通じて知見を深めるとともに、同じ分野の我が国の青年との交流を通じて相互理解を深めることを目的として、ASEAN 諸国を対象に、"青年招へい"事業を開始した。その後、対象地域はアジア、大洋州諸国、アフリカ、中央アジア、中東、中南米に拡張され、2006 年度までに 31,428 名が青年招へい研修に参加している。"青年研修"事業は、2007 年度から内容を改編し、新たにスタートした研修事業である。2007 年度から 2016 年度までに 11,023 人[1] が研修に参加し、2017 年度は 980 人の受入予定で、世界の 121 か国から参加している。JICA の青年研修は現在、開発途上国の次世代を担う若手リーダーの育成として、

1.　日本における各分野の基礎的な技術や制度に関する知識を習得する

2.　日本の技術が発展した歴史、経験や文化、社会的な背景を理解する

3.　対象国の開発課題解決への取り組みに資する知識・意識を向上させる

ことを目的としている[2]。

　また、JICE は、設立以来 30 年以上にわたり JICA の研修監理業務[3] を担ってきた。研修員の来日から帰国までの期間、研修コースの計画に沿って、研修担当者及び研修監理員が研修実施期間全体の運営管理を行ってきた。青年研修以前の青年招へいプログラムにおいても、そのプログラムの設立時から関わり、JICA の既存の研修監理業務に加え、青年招へい事業をサポートし、青年の交流を深める様々な活動をプログラムに組み込む支援を行った。

　現在、JICE はこの経験を生かし、国内外の政府や国際機関から委託を受けて研修を実施している。研修以外の国際交流事業や留学生事業においても、海外からの若手リーダーの日本での学業や交流の成果を最大限にするために、様々な業務を行っている。

※ 1　www.jica.go.jp/
※ 2　JICA2017 Annual Report
※ 3　研修監理業務とは、研修コース個々のプログラムの計画に基づき、主に研修現場においては研修監理員（トレーニング・コーディネーター）が、その全体の運営管理を行い、研修成果を最大限にするために、研修期間中のプログラム全行程に同行し、通訳を行い、関係機関とのプログラムの連絡調整、研修員の課題や問題点を把握して理解を促進する業務全体を指す。

２．研究目的

　本研究は、JICE が 2013 年度から 2016 年度の 4 年間に行った JICA の青年研修の「研修事後評価調査・現況調査」のデータを再分析することによって、青年研修の効果を総体的にとらえ、そこから JICE が実施している研修や他の事業に生かしていくための教訓を得ることを目的としている。

３．研究方法

3.1　調査対象

　2013 年度から 2016 年度の「課題別研修等事後評価調査・現況調査における青年研修の全数調査は、質問紙（アンケート）調査法を用いて行った。調査対象は 2010 年度〜 2014 年度の青年研修に参加した研修員 5,553 人であったが、有効メールアドレスを持つ 1,961 人に質問票を送付し、590 人から回答を得た（表 1）。今回はこの 4 年間のデータをまとめて再分析をした。

研修事後評価からの教訓
—JICA 青年研修事後評価を事例（4 年間）として—-

JICE

表1　全数調査対象者数・アンケート回答回収

調査年	2013年度	2014年度	2015年度	2016年度	合計
対象年度	2010	2011〜2012	2013	2014	2010〜2014
研修員数（人）	1,460	2,144	1,028	921	5,553
有効メールアドレス	392	770	476	323	1,961
回答数（回収率：％）	76(19.4%)	288(37.4%)	130(27.3%)	96(29.7%)	590(30.0%)

3.2　調査方法

　調査にあたっては、エクセルファイルで作成した質問票及びグーグル・ドキュメントのアプリケーションを利用した Web アンケートの2種の方法を用いた。対象者への電子メールにエクセルファイルによる質問票を添付するとともに、送付状にWeb アンケートの URL 並びに両質問票の内容は同じである旨を記載した。質問票は基本的に英語版を用いているが、研修員数が多い国については母国語に翻訳したものを提供した。

　青年研修における質問項目の内容は、「研修参加の動機」・「研修内容」及び「研修カリキュラム評価」、研修の効果（アウトカム）に関する「研修内容の習得度」・「研修総合評価」・「研修後の意識・態度の変容」・「習得した知識・技術の活用」・「研修経験の共有」・「日本・日本人や関係者との関わり」及び「日本に対する理解」などである。質問項目は主に5段階評価（5点が評価が高く1点は評価が低い）を用いた。

　青年研修の経年変化を見るために、質問の多くは4年間同じ内容である。なお、2016年度に関しては経年変化に捉われることなく質問をしていることから、一部の質問内容が異なっている。

４．分析結果

　分析では、効果の発現状況を明らかにするために、それぞれの質問項目について回答者の平均点を求めた。さらに各質問項目間の関連性および効果の発現要因を明らかにするために、相関分析、重回帰分析を行った。

4.1　研修員の属性

　青年研修の各年度の分析対象者の所属地域は図1のとおり11地域（590人）から参加しており、どの年度においても東南アジアからの研修員が一番多く、次にアフリカ、そして南アジアとなっている。

図1　研修員の所属国（N: 研修員数）
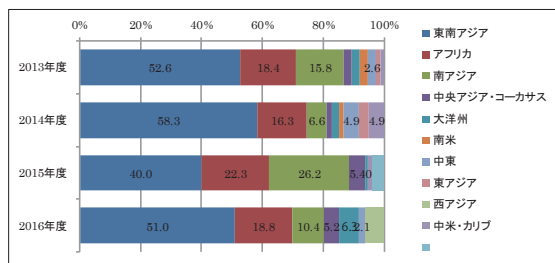
4.2　研修に対する評価

　以下、評価結果を示す表中の評価値が空欄の場合は、調査で質問を行っていないことを示している。

4.2.1　研修参加の動機

　青年研修の研修参加動機に関しては、表2から分かるように、総じて4点台の高い値を示している。特に「研修内容に興味を持った」と「日本に来ることに興味を持った」の二つの評価が3年間を通じて 4.60 点以上であることから、日本に対する関心が高いことがうかがえる。

表2　参加の動機

質問項目	2013年度	2014年度	2015年度	2016年度
I was interested in the contents of theTraining	4.74	4.73	4.81	-
I was interested in coming to Japan	4.75	4.74	4.60	-
My supervisor advised me to participate in the Training.	3.80	4.03	3.82	-
My colleagues and/or friends advised me to participate in the Training.	3.61	3.67	3.57	-

4.2.2　研修内容

　研修内容に関しての研修員の平均点はすべて4.21 点以上の高い評価を得ている（表3）。「研修内容は本国のニーズに合致」、「研修内容は所属機関のニーズに合致」、「研修内容は新しい知識・技術を網羅」、「研修内容は実際的」及び「研修カリ

研修事後評価からの教訓
—JICA 青年研修事後評価を事例（４年間）として—-

キュラムは目標達成のために適切にデザインされている」は４年間通じて高い。一部質問していない年度があるが、「研修は日程通りに実施された」、「研修は目標達成のために適切に実施された」、「研修は計画通りであった」、「学習した研修内容は業務に関連がある」及び「学習した研修内容は現在も活用できる」の質問は２年あるいは３年間、高く評価されている。このことから JICA 研修事業の青年研修が提供した内容は非常に高いと言える。

表３　研修内容

質問項目	2013年度	2014年度	2015年度	2016年度
The contents of the Training matched my country's needs	4.53	4.47	4.48	4.49
The contents of the Training matched my organization's needs	4.36	4.32	4.41	4.29
The contents of the Training covered new knowledge and skills	4.47	4.53	4.53	4.61
The contents of the Training were practical	4.26	4.36	4.41	4.21
The Training curriculum was appropriately designed to achieve its goal.	4.23	4.41	4.38	4.27
The Training was implemented as scheduled	-	4.77	4.73	-
The Training was implemented efficiently for achieving its goals.	-	4.58	4.59	-
The Training covered the contents as planned.	-	4.65	4.70	-
・The knowledge and skills I learned in the Training are relevant at present（2014.2015） ・The knowledge and skills required for my work at present（2013）	-	4.45	4.42	4.38

4.2.3　研修カリキュラム

研修のカリキュラムとして、「ジェネラルオリエンテーションによる日本紹介」、「研修監理員と関係スタッフのパフォーマンス」、「日本人との相互交流」、「研修員間の交流」、「講師」、「現場視察」、「ホームスティ」及び「プログラム全体」について質問した。なお、2013年度から2015年度は10段階評価で2016年度は５段階評価となっている（表４）。

研修カリキュラムの中で「研修監理員と関係スタッフのパフォーマンス」については2013年度から2015年度の３年間を通じて9.01点以上の非常に高い評価を得ている。また、2016年度も4.75点の高い評価となっている。その他「日本の文化紹介」、「現場視察」、「ホームスティ」、「講義」及び「研修員間の交流」も高く評価されている。2016年度の５段階評価でも多くは4.29点以上と高い評価となっている。さらに、カリキュラム全体の評価（以下研修総合評価）は2013年度から2015年度の３年ともに8.72点、8.92点、8.93点と非常に高い。こ

のように、JICA が提供している研修カリキュラムのそれぞれが高く評価され、研修総合評価も高いことから、質の高い研修を提供していると考えられる。

表４　研修カリキュラム

質問項目	2013年度	2014年度	2015年度	2016年度
General orientation on culture of Japan	8.45	8.75	8.89	4.33
Coordinators and staffs' performance	9.01	9.11	9.18	4.75
Interaction with Japanese people	7.62	8.46	8.61	-
Interaction with other participants	8.66	8.84	8.90	4.29
Lectures	8.35	8.59	8.71	4.47
Field visits	8.79	9.09	8.97	4.66
Home-stay	8.57	8.10	8.75	4.52
Program as a whole	8.72	8.92	8.93	-

５．研修の効果（アウトカム）

5.1　習得度・目標達成度・研修総合評価

研修を総合的に理解するために、全体として「研修内容をどの程度習得したか」と「研修目標にどの程度達したか」を質問した。習得度に関して、2013年度は79.30％、2014年度は84.28%そして2015年度には84.83％と研修で与えられた知識・技術の80％前後の高い習得度となっている（表５）。また、目標達成度について、2013年度は77.30％、2014年度は81.07％、2015年度は81.53％と80％前後の高い目標達成度を示している（表５）。

表５　習得度・研修総合評価（％）

質問項目	2013年度	2014年度	2015年度	2016年度
How much of the Training contents did you acquire overall? Please answer in terms of percentage（from 0 to 100）	79.30	84.28	84.83	-
How much of the Training's goal did you achieve ? Please answer in terms of percentage (from 0 to 100)	77.30	81.07	81.53	-

5.1.1　習得度に影響を及ぼす要因

研修参加者にとって研修内容を習得することは重要であることから、重回帰分析を用いて習得度と習得度に影響を与える要因との関連をみた(表６)。

「研修で習得した知識やスキルは現在の業務にも生かされている・習得した知識・スキルは現在の

研修事後評価からの教訓
―JICA 青年研修事後評価を事例（4 年間）として―-

業務で必要なレベルである」、また「講義」は 3 年連続で研修の習得度に影響を及ぼしている。2014 年度は「研修内容が所属組織のニーズに合致している」、そして 2013 年度は「研修内容は実用的であった」も習得度に影響を及ぼしている。これらから研修員が帰国後も必要とされる高いレベルの内容を研修実施側が提供する、また良い講義であるほど習得度が上がると考えられる。

表 6　習得度に影響を及ぼす要因

説明変数	2013年度		2014年度		2015年度	
	標準偏回帰変数	検定結果	標準偏回帰変数	検定結果	標準偏回帰変数	検定結果
The contents of the Training matched my organization's needs	-.066		.237	(**)	-.112	
The contents of the Training were practical	.231	(+)	.026		-.096	
・The knowledge and skills I learned in the Training are relevant at present(2014, 2015)　・The level of knowledge and skills I acquired from the Training: compared with the knowledge and skills required for my work at present(2013)	.252	(+)	.139	(*)	.409	(**)
Lectures	.403	(*)	.265	(**)	.328	(**)
Field visits	-.132		.004		.018	
調整済み決定係数	.264	(**)	.258	(**)	.222	(**)
N	68		285		120	

** 1%水準で有意差がある　* 5%水準で有意差がある　+ 10%水準で有意差がある

5.1.2　研修総合評価に影響を及ぼす要因

次に重回帰分析を用いて研修総合評価と各研修カリキュラムとの関連をみた。表 7 に示されるように「研修監理員と関係スタッフのパフォーマンス」、「講義」及び「現場視察」は 3 年連続して研修総合評価に大きく影響を及ぼしている。また、2014 年度の「ジェネラルオリエンテーションによる日本文化紹介」と「ホームスティ」も研修総合評価に影響を及ぼしている。これらから「研修監理員と関係スタッフのパフォーマンス」、「講義」、「現場視察」の評価が高いほど、研修総合評価がよ

表 7　研修総合評価に影響を及ぼす要因

説明変数	2013年度		2014年度		2015年度	
	標準偏回帰変数	検定結果	標準偏回帰変数	検定結果	標準偏回帰変数	検定結果
General orientation on culture of Japan	-.015		.199	(**)	.107	
Coordinators and staffs' performance	.290	(*)	.271	(**)	.286	(**)
Interaction with Japanese people(2014, 2015)　Interaction with young Japanese people(2013)	.095		.010		.137	(+)
Interaction with other participants	.156		-.065		-.038	
Lectures	.176	(+)	.238	(**)	.324	(**)
Field visit	.339	(**)	.259	(**)	.179	(*)
Home-stay	.013		.120	(**)	.102	
調整済み決定係数	.793	(**)	.693	(**)	.655	(**)
N	55		242		109	

** 1%水準で有意差がある　* 5%水準で有意差がある　+ 10%水準で有意差がある

り高くなると言える。

5.2　研修員の意識・態度の変容

表 8 に示すように、研修参加後の研修員の意識や態度の変化として、「研修トピックに関する意識・自覚が強くなった」、「より効果的・効率的に業務をするようになった」、「自国の開発に貢献できるような活動へのモチベーションが上がった」及び「自国の状況を国際的観点から考えるようになった」の質問をした。

2014 年度から 3 年間にわたり、「研修トピックの意識・自覚が強くなった」「自国の開発に貢献できるような活動へのモチベーションが上がった」、「自国の状況を国際的観点から考えるようになった」の評価は 4.51 点以上と高く、意識の変化と態度の変容が見られた。キャパシティビルディングの指標となる研修員の意識・態度の変容が生じていることが考えられる。

表 9 は 2014 年度と 2015 年度における研修員の意識・態度の変容と「より重要な業務への配置」、「昇進」との相関を示してある。いずれも相関係数は有意であることから研修員の意識の変化や態度の変容によってより重要な業務に配置されるようになった、あるいは昇進したと考えられる。

表 8　研修員の意識・態度の変容

質問項目	2013年度	2014年度	2015年度	2016年度
The Training strengthened my awareness on the topic of the Training.	-	4.59	4.57	4.51
I work more effectively and efficiently.	-	4.36	4.42	-
I am more motivated to undertake activities that contribute to my country's development.	-	4.62	4.60	4.67
I consider my country's situation with international perspective more than before.	-	4.50	4.52	4.48
I am assigned to more important work.	-	3.96	4.26	-
I am promoted	-	3.29	3.64	-

表 9　研修員の意識・態度の変容と重要な仕事および昇進との相関

質問項目	年度	The Training strengthened my awareness on the topic of the Training.	I work more effectively and efficiently.	I am more motivated to undertake activities that contribute to my country's development.	I consider my country's situation with international perspective more than before.
I am assigned to more important work.	2014	.230**	.307**	.386**	.344**
	2015	.328**	.595**	.337**	.360**
I am promoted.	2014	.081	.241**	.234**	.147*
	2015	.174*	.449**	.153	.274**

** 1%水準で有意差がある　* 5%水準で有意差がある

**研修事後評価からの教訓
—JICA 青年研修事後評価を事例（4 年間）として—-**

JICE

5.3　習得した知識・技術の活用

　研修で習得した知識・技術がどのように活用されているかについては、「学んだ当該分野の方法や技術を業務の中で生かすことができている」はすべての年度で 4.15 点以上と高く評価されている（表 10）。また、「所属組織の中でアクションプランを作る、あるいは改善している」、については、ほとんどの年度で評価は 4.05 点以上となっている。これらから習得した知識・技術の活用は自分の業務、所属組織で大いに活用されていると思われる。政府レベル、自治体レベルへの政策提言への評価は相対的に低くなっていることから、研修員の身近な職場での活用が良くできていると考えられる。

表 10　習得した知識・技術の活用

質問項目	2013年度	2014年度	2015年度	2016年度
I contributed to establishment or improvement of policies and systems by national or local government.	3.67	3.48	3.68	3.65
I contributed to establishment or improvement of system in my organization.	3.79	3.90	4.08	3.72
I contributed to establishment or improvement of methods and techniques used in my work.	4.22	4.23	4.23	4.15
I contributed to project formulation in my organization.	3.86	3.89	4.09	3.86
I contributed to development or improvement of action plans in my organization	4.19	4.05	4.23	3.89

5.4　習得した経験の共有

　日本での経験を帰国後どのように共有しているかを質問した。3 年間を通して評価が高かったのは、「経験を自分の所属機関と共有した」と「経験を自分の所属先以外で共有した」で、評価は共に 4.10 点以上と高く、帰国研修員は広く経験を共有しようとしていると言える。「日本の事を他者に伝えた」「日本の研修プログラムを他者に伝達した」の評価も共に 4.39 点以上であった（表 11）。

　研修員は様々な形や場所で日本の研修の経験を共有し、伝達していることが伺えることから、キャ

表 11　習得した技術の共有

質問項目	2013年度	2014年度	2015年度	2016年度
I shared the contents of the Training in my organization.	4.47	4.50	4.63	-
I shared the contents of the Training with others outside of my organization.	4.16	4.13	4.10	-
After participating in the Training, I tell others about my program experience in Japan.	4.55	4.37	4.39	-
After participating in the Training, I tell others about my impression of Japan	4.50	4.55	4.54	-

パシティビルディングの過程で起きる知識・技術の共有と伝達もなされていると考えられる。

5.5　日本・日本人の理解

5.5.1　日本・日本人に対する認知の変容

　表 12 に示されるように、日本と日本人の理解度に対して 4 つの質問を行った。「日本と日本人への信頼性の深化」、「日本人と協働することへの深い興味」、「日本の社会と日常生活への深い理解」、「日本の伝統・文化の深い理解」の全ての質問に対して 4.42 点以上と非常に高い評価となっている。これらの結果から、研修員の日本・日本人に対する信頼、日本人と共に仕事をすることへの興味、日本の社会・日常生活への理解、日本の伝統文化が深まったと考えられる。日本・日本人への理解が深まることにより日本に対して好感度が高まったと考えられる。

表 12　日本・日本人に対する認知の変容

質問項目	2013年度	2014年度	2015年度	2016年度
My trust in Japan and the Japanese people has increased.	4.72	4.66	4.72	4.50
My interest in working with Japanese people has increased.	4.68	4.69	4.71	4.67
I have gained a deeper understanding of Japanese society and daily life	4.47	4.56	4.51	4.57
I have gained a deeper understanding of Japanese traditions and culture.	4.51	4.47	4.42	4.57

5.5.2　「日本の文化への理解」と「研修カリキュラム」

　日本の文化を理解するために役だったことを尋ねたところ、表 13 に示すように「ジェネラルオリエンテーションによる日本文化紹介」、「実施機関やプログラムマネジャー等との交流」及び「現場視察」の評価は全てが 4.23 点以上と高い。このことから日本文化の理解にこれらの活動が大きく貢献していると言え、研修員は様々な場所で日本文

表 13 「日本の文化への理解」と「研修カリキュラム」

質問項目	2013年度	2014年度	2015年度	2016年度
General orientation helped me understand culture of Japan.	4.40	4.42	4.43	4.23
Interaction with the implementing organization and program managers helped me understand culture of Japan.	4.40	4.48	4.42	4.27
Field visits helped me understand culture of Japan.	4.59	4.71	4.60	4.48

Naonori Kodate | Masako Kishimoto | Aiichiro Yamamoto | Kenji Yamana | Toshio Namai/Hiroshi Imai | Sachiko Yamano

研修事後評価からの教訓
—JICA 青年研修事後評価を事例（4 年間）として—-

化に触れ、体験していることがうかがえる。

5.5.3 「日本の文化への理解」に影響を及ぼす要因

　表 14 は「日本の文化への理解」に対して「ジェネラルオリエンテーションによる日本文化の紹介」、「研修監理員と関係スタッフのパフォーマンス」、「日本人・日本人の若者との交流」及び「現場視察」を説明変数として重回帰分析を行った結果を示してある。

　この表から明らかなように、「日本の文化への理解」に対して 2014 年度と 2016 年度は「ジェネラルオリエンテーションによる日本文化の紹介」が大きく影響しており、2013 年度と 2015 年度は「日本人・日本人の若者との交流」が、また 2016 年度は「研修監理員と関係スタッフのパフォーマンス」が大きく影響を及ぼしている。これらのことから、研修員への働きかけや活動をするほど日本の伝統・文化への理解が深まると考えられる。

表 14「日本の文化への理解」に影響を及ぼす要因

説明変数	2013年度		2014年度		2015年度		2016年度	
	標準偏回帰係数	検定結果	標準偏回帰係数	検定結果	標準偏回帰係数	検定結果	標準偏回帰係数	検定結果
General orientation on culture of Japan	.221		.432	(**)	.054		.281	(**)
Coordinators and staffs' performance	-.141		-.070		.045		.279	(**)
・Interaction with Japanese people (2014, 2015) ・Interaction with young Japanese people (2013)	.318	(*)	.061		.346	(**)	–	–
Field visits	-.012		.039		.018		.098	
調整済み決定係数	.104	(*)	.191	(**)	.136	(**)	.206	(**)
N	71		280		124		96	

** 1%水準で有意差がある　* 5%水準で有意差がある

5.5.4 「日本の社会と日常生活の深い理解」に影響を及ぼす要因

　表 15 は、「日本の社会と日常生活の深い理解」に対して「ジェネラルオリエンテーションによる日本文化の紹介」、「研修監理員と関係スタッフのパフォーマンス」、「日本人・日本人の若者との交流」及び「現場視察」を説明変数として重回帰分析を行った結果を示している。「日本の社会と日常生活の深い理解」に対しては、2013 年度と 2014 年度は「ジェネラルオリエンテーションによる日本文化紹介」が大きく影響を及ぼし、2013 年度と 2015 年度は「日本人・日本人の若者との交流」が大き

く影響を及ぼしており、これらの機会が増えるほど日本の社会や日常生活の理解が深まると考えられる。

表 15 「日本の社会と日常生活の深い理解」に影響を及ぼす要因

説明変数	2013年度		2014年度		2015年度	
	標準偏回帰係数	検定結果	標準偏回帰係数	検定結果	標準偏回帰係数	検定結果
General orientation on culture of Japan	.295	(+)	.383	(**)	.162	
Coordinators and staffs' performance	-.076		-.039		-.045	
・Interaction with Japanese people(2014, 2015) ・Interaction with young Japanese people(2013)	.268	(*)	.099		.343	(**)
Field visits	-.030		.025		.001	
調整済み決定係数	.130	(**)	.177	(**)	.171	(**)
N	71		280		124	

** 1%水準で有意差がある　* 5%水準で有意差がある　+ 10%水準で有意差がある

5.5.5 「日本・日本人への信頼性の深化」に影響を及ぼす要因

　表 16 は、「日本・日本人への信頼性の深化」に対して「ジェネラルオリエンテーションによる日本文化紹介」、「研修監理員と関係スタッフのパフォーマンス」、「現場視察」そして「日本の伝統・文化への深い理解」を説明変数に用いて重回帰分析を行った結果を示している。

　2013 年度から 2016 年度の 4 年間連続して「日本の伝統・文化への深い理解」が「日本・日本人への信頼性の深化」に大きく影響を及ぼしている、また「研修監理員と関係スタッフのパフォーマンス」が 2014 年度から 2016 年度の 3 年間連続して大きく影響を及ぼしていることが明らかになった。これらが提供されるほど日本・日本人への信頼性が深まると考えられる。

表 16 「日本・日本人への信頼性の深化」に影響を及ぼす要因

説明変数	2013年度		2014年度		2015年度		2016年度	
	標準偏回帰係数	検定結果	標準偏回帰係数	検定結果	標準偏回帰係数	検定結果	標準偏回帰係数	検定結果
General orientation on culture of Japan	.250		.106		.017		-.031	
Coordinators and staffs' performance	-.115		.189	(**)	.333	(**)	.181	(+)
Field visits	.129		.005		.022		-.014	
I have gained a deeper understanding of tradition and culture.	.357	(**)	.369	(**)	.213	(*)	.380	(**)
調整済み決定係数	.209	(**)	.263	(**)	.163	(**)	.178	(**)
N	74		282		126		95	

** 1%水準で有意差がある　* 5%水準で有意差がある　+ 10%水準で有意差がある

JICE Collection of Theses and Research Notes

(17)

5.5.6 「日本人と協働することへの深い興味」に影響を及ぼす要因

表 17 には、「日本人と協働することへの深い興味」に対して、「ジェネラルオリエンテーションによる日本文化紹介」、「研修監理員と関係スタッフのパフォーマンス」、「現場視察」そして「日本と日本人への信頼性の深化」を説明変数として重回帰分析を行った結果を示している。

その結果、2013 年度から 2016 年度の 4 年間連続して「日本と日本人への信頼性の深化」が日本人と協働することへの興味に大きい影響を及ぼしていることが明らかになった。2013 年度では「研修監理員と関係スタッフのパフォーマンス」が、2014 年度では「ジェネラルオリエンテーションのよる日本文化紹介」が強く影響を及ぼしている。

これらのことから、日本で接した人々によって日本と日本人への信頼度が高まり、日本人と協働したい気持ちとなっていることが考えられる。

表 17 「日本人と協働することへの深い興味」に影響を及ぼす要因

説明変数	2013年度		2014年度		2015年度		2016年度	
	標準偏回帰変数	検定結果	標準偏回帰変数	検定結果	標準偏回帰変数	検定結果	標準偏回帰変数	検定結果
General orientation on culture of Japan	-.194		.151	(**)	.072		.020	
Coordinators and staffs' performance	.436	(**)	.032		.086		.108	
Field visits	-.078		.055		-.104		-.023	
My trust in Japan and the Japanese people has increased	.563	(**)	.598	(**)	.730	(**)	.465	(**)
調整済み決定係数	.368	(**)	.490	(**)	.573	(**)	.227	(**)
N	74		282		124		124	

** 1%水準で有意差がある

6．研修後の日本人・JICA・研修員間との関わり

帰国後の日本人や JICA、研修員たちとのつながりについては、「ホームスティ家族」、「日本の若者ボランティア」、「プログラム・マネジャーやその関係スタッフ」、「自国の日本語講師や文化関係の講師との関係」、「ビジネス関係での日本とのつながり」「日本との交流プログラムへの参加」、「JICA 同窓会ネットワークからの JICA や日本の情報提供」及び「元 JICA 研修員との繋がり」などを質問した。

表 18 に示されているように、これまでの他の質問と比較して、帰国後の日本人との関わりについての評価は 1 点台あるいは 2 点台と総じて低い。JICA からの情報提供や同窓会を通してのネットワークの評価は 2013 年度が 3.14 点であるが、その後は 2.40 点、2.73 点、2.72 点と低い。また JICA の他の研修参加者についてもすべての年度において評価は 2 点台と低い。日本人とのその後のビジネスの関係や日本関係のプログラムへの参加の評価も 1 点台と低い。研修員間も 2 点台と高いとは言えない。研修参加後は研修員の日本人や関係者とのつながりや交流は少ないことが分かる。

表 18 研修後の日本・JICA・関係者及び研修員間の関わり

質問項目	2013年度	2014年度	2015年度	2016年度
My home-stay family	2.23	2.32	2.77	-
Japanese youth volunteers (for in-house seminars and/or Japanese language programs)	2.38	2.26	2.23	-
My program managers or staff	2.53	2.69	2.88	-
I work as a Japanese language/culture teacher in my country.	1.04	1.210	1.770	-
I conduct business with Japanese people.	1.21	1.430	1.400	-
I participate in exchange programs with Japan.	1.25	1.427	1.630	-
I receive information about JICA and Japan through alumni network?	3.14	2.40	2.73	2.72
I engage myself in activities with other former JICA trainees.	2.56	2.39	2.48	2.18

7．結論とまとめ

本研究では、ICA 青年研修における研修員の研修全体の成果は 4 年間継続して高く評価され、下記に述べる研修の効果が出ていることを明らかにした。

参加者の参加に対する動機は、研修内容に対する興味と、日本に来ることへの関心の高さが強く関係していることが明らかとなった。そして JICA が提供した研修内容が相手国や研修員の所属機関のニーズに合致し、研修終了後も生かすことができるレベルと内容になっている。研修カリキュラムについては、研修員は当該分野の研修コンテンツのみならず、日本文化紹介、研修監理員や関係スタッフ、日本人との交流及びホームスティのどれも高く評価し、全体のプログラムに満足している。

研修事後評価からの教訓
―JICA 青年研修事後評価を事例（4 年間）として―-

研修の効果として、研修全体の習得度については学習した知識や技術が現在でも活用でき、現在の業務に関係したものであることが大きく影響している。そして、総合的評価については、特に「研修監理員・関係スタッフのパフォーマンス」・「講義」及び「現場視察」が大きく貢献していることが明らかになった。研修員の帰国後の意識・態度の変容については、研修員自身の仕事に対する自覚が強まり、自国の開発に貢献する活動へのモチベーションが上がり、自国の状況を国際的観点から考えられるようになったことは自国の開発課題への意識が高まったと言える。そして研修員の、より重要な業務への配置や昇進につながっている。日本が提供した知識・技術は帰国研修員によって他者に伝達されており、自分の業務の身近なところで習得した知識・技術を活用し、新しいプロジェクトが形成されているという研修の波及効果が発現していることが明らかになった。さらに、青年研修に参加することによって、日本・日本人の理解について、ジェネラルオリエンテーションでの日本文化紹介、研修監理員と関係スタッフのパフォーマンス、現場視察等から多くの影響を与えられ、日本の伝統・文化が日本・日本人への信頼性を高め、その信頼性が日本人と一緒に働くことに関心を持つことに繋がっている。青年研修に参加することによって日本・日本人との良い繋がりが育成されており親日家、知日家が醸成されていることを明らかにした。一方で、研修実施後の関係者との繋がりや関係が充分継続・持続されているとは言えないことが示された。

これらを総合すると、青年研修の策定に当たっては、当該分野の高度な内容とそれを支える要素が求められており、それらに応えたプログラムが提供されていると言える。そして対象国の開発課題に必要な専門知識・技術の習得に青年研修が貢献していると考えられる。また、習得した知識・技術の活用も行われ親日家を醸成している。来日することによって、日本人と接触し、日本の伝統文化に触れ、日本への信頼度を高めて日本や日本

人をこれまで以上に理解していることは JICA の研修目的にも合致しており、その達成度は高い。

また、本研究によって以下の教訓が得られた。
1.　相手国および研修員のニーズに研修内容が合致していることは、研修員の習得度や総合評価に密接に結びついているため、研修策定時には相手国のニーズをできる限り把握し、研修目的を明確にすることが重要である。
2.　研修カリキュラムは、当該分野の現地の技術に合致した、将来も役に立つ情報も含めた高質のプログラムが要求されることから、研修策定者は専門分野の理解も不可欠である。講義、現場視察、日本・日本人の理解度を高める項目をできる限り含めることが望まれる。特に、来日によって身近で触れる日本人から学び、影響を受けることが大きいことから、JICE スタッフの役割が研修の評価に大きく関わる。日本の知識や技術の背景にある日本の伝統・文化は研修員には興味深く、それによって日本への信頼感が高まり、日本人と協働したいと言う意識が高まっている。日本・日本人理解に関してのテーマについては JICE が独自に提供できるプログラムであると考えられる。

一方で研修実施後時間が経つにつれ、日本での経験や体験、日本・日本人の良さが、その後の関係が切れてしまうと当然ながらその効果や記憶は逓減していことが懸念される。これに対して、
3.　研修員帰国後のフォローアップの必要性があげられる。帰国後のフォローアップも研修策定時に提示できることが望ましい。帰国後の現地でのセミナー、専門家派遣、実施したいプロジェクトのフォロー、同窓会など工夫できることがあると考える。
4.　研修の評価は今後の研修の高度化、改善、ニーズの把握に必要であることから、評価手法を確立していくことによって JICE の事業結果を内外に発信することができる。

JICE は現在研修事業として国内外の政府機関や国際機関からの多くの研修を受託している。この研究で扱った青年研修は JICE が過去に研修監理

業務を中心として研修コース実施にかかわった事業であることから、研修全体の評価が高く、研修監理員やスタッフが研修の成果・効果に貢献していたことは JICE として自信につながるものと考える。そして現在実施しているその他の研修、交流や留学生受け入れ事業の策定への教訓となるのではないかと考える。

謝辞

　本論は JICE がプライムとなって JICA から受託した「課題別研修事後評価調査・現況調査　調査報告書」の青年研修を基に分析・まとめたものである。調査の全数調査の生データを提供いただいた菊田怜子、高木桂一、中山和也、劉文（敬称略）のご協力に感謝申し上げる。ここで述べた見解は筆者個人のものであることを申し添える。

Complications of the Language and the Constraints on the Interpreter

Aiichiro Yamamoto

Special Assistant to the President of Japan International Cooperation Center(JICE)

Introduction: Language and Humans

The use of fire and language distinguishes the humans from the animals. The former given by Prometheus largely contributed to the advancement of civilization of the humanity but the latter given by the God as a punishment for the human attempt to build the Tower of Babel, destined humans to be segregated by languages.

According to Ethnologue, which is a summary of the languages of the world, there are more than 6,900 languages spoken in the world; even in Nepal alone there are 120, in Papua New Guinea, 800, and in Australia, 270. This fact makes communication between people of different languages extremely difficult save for using body or sign languages.

This study note examines how humans of different linguistic background can smoothen oral communication by using professional interpreters given the constraints and difficulties.

Chapter 1 : Structure of the Language

This Chapter starts with analyzing the structure of the language. Animals create a sound by crying, barking, mewing and chirping to send existential messages such as "This is my territory." or "Keep away from me." Humans can send more complicated massages and communicate with each other by using a common language.

An oral language is composed by a combination of sounds articulated by the human speech organ such as nose, lips, teeth, palate, tongue and vocal cords. But the striking difference from that of the animals is that each sound has its own meaning. And that meaning is different from language to language. For example, if you pronounce "an" in English, it means "one". But in Japanese it means "a draft plan". If a Japanese pronounces "queue" it means

"ball". But for an Englishman, it means to" form a line". Although the sound itself is universal, each language gives it a different meaning.

The other human wisdom is to create a word as a meaningful cluster of sounds . A single linguistic sound or a syllable is composed by a combination of a vowel and a consonant or by a vowel or consonant only. "ai" in Japanese, which is a combination of "a" and "i" means "love", while English combination of the sound indicating "love" is "l" + "o" + "v". For English speakers, "ai" spoken by a Japanese sounds like "I", which means "myself". In this way different languages give a totally different meaning to the same cluster of sound.

This makes communication between people with different tongues impossible. For the native speakers of English who know nothing about Japanese, it sounds like chickens cracking in a barn and the reverse is also true. Human wisdom has enriched their language in terms of its vocabulary thus enabling to express various things and ideas but on the other hand made their language more difficult to understand by those who use other language.

One other human linguistic art is grammar. Grammar is a set of rules governing the order of the words, conjugation of words, and adding particles and other auxiliary parts to the words. A speaker of a language puts the words under the predetermined rule of order and make a sentence. But the rule differs from language to language. In Japanese and French "I love you." must be put in the order like "I you love." If an English speaker says "I went to the party yesterday." It must be translated into Japanese in the order of "I yesterday to the party went."

In some language, conjugation of verbs are more complicated than other languages. Japanese does not distinguish present perfect tense and past tense. If you say a sentence in Japanese equivalent to "I went to New York," it means

"I went to New York and "I have been to New York." in both ways. In French the verb has more variety of conjugation such as imperfect tense. French uses imperfect tense when they mean a certain event was continuing in the past but it doesn't exist any more now such as " Nous étions amis. " which means we were friends for a certain period at that time but now no more.

Generally speaking, European languages are more are keen on and have more variety of tense, hence they have more variety of conjugation of verbs. Asian languages are less keen on and have less variety of tense, hence they have less conjugation of verbs. German language has conjugation even of nouns depending on its gender, number and case, while French has on its gender and number only and Japanese has nothing at all except a few nouns such as "hito" (man) and "yama" (mountain). The plural form of "hito" in Japanese is "hito-bito (man-man)" and that of "yama" is "yama-yama (mountain-mountain) " Similar pattern is seen in Indonesian language as in orang-orang (man-man) and gunung-gunung (mountain-mountain) Adding a particle or an auxiliary to a word characterize the word more precisely and meaningfully. In Japanese, if you add "e" to a noun, it will mean a direction. "gakkou" +" e" means " to school". In a similar way in English "I go to school". The difference is that English puts an auxiliary ahead of the word while Japanese after the word.

Chapter 2 : Evolution of the Language

In this Chapter, we compare three languages: English, Japanese and Indonesian to examine how a language evolves over time and under the influence from outside the realm where the language is spoken.

2.1 English

As discussed above, rule-based combination of words, conjugation of words and affixing and suffixing of words dramatically increase the capability of a language to send more accurate, complex and abstract messages. However, not all the languages of the world have been evolved and developed to such an extent.

The evolution of a language depends on, and influenced by, the development of civilization, historical transformation and advancement of the livelihood of the country and people who speak the language. According to the well-known period classification, English is classified into four periods: Old English; Middle English; Modern English; and Present-Day English.

During the period of Old English (449 A.D.-1100 A.D.), the English vocabulary was largely rooted from Anglo-Axon words such as "after, back, call, danger, eat, fresh, ghost, hide, inn, job, keep, lad, make, name, old, pillow, queen, red, strong, three, up, and women. They are mostly short concrete and direct words. In addition to these, more than 2000 words of Old Norse origin entered into English as a result of the settlement of Vikings in the north eastern England from late 8th century such as "both, call, die, egg, give, hit, raise, take, though, ugly, and want". As may be noticed, the words of English during this period are mostly short concrete and direct ones.

During the age of Middle English (1100 A.D. -1500 A.D.), transformational change took place in English language as numerous vocabulary from French was added to that of Germanic and Nordic origin described above as a consequence of Norman Conquest of England in 1066. Such vocabulary includes: "academy, boulevard, capital, date, equip, fiber, group, heritage, ideal, justice, kiosk, literature, machinery, naïve, obscure, partisan, questionnaire, regime, sentence, television, unique and village".

During the period of Modern English, an interesting phenomenon occurred among English intellectuals to import words of Greek and Latin origin such as "absent, base, case, debt, election, face, genocide, hotel, itinerary, junior, kinetics, lamp, magnet, negative, ocean, panic, quit and resident".

Thus English has expanded its vocabulary enormously by actively importing foreign words throughout its historical evolution. 29% of modern English words are derived from French, 29% from Latin and 26% from Germanic. It is said that in order to generally understand

English, it is necessary to master 3000 words, French 2000 words, German 5000 words; and Japanese 10000 words. Japanese has one of the richest vocabularies of the world languages. I will examine why that happened next.

2.2 Japanese

Like English, Japanese language has transformed dramatically in tandem with its historical evolution. It is believed that until 1400 years ago there was no written language in Japan. People had depended on oral languages to communicate with each other within the community in which they lived. Thus it was difficult to send a message across to distant communities or to keep any record for future generations. However, it was fortunate for Japan to have a highly civilized country just next to her. Japan imported a whole set of characters from China at the end of the 3rd century.

The Japanese used imported Chinese characters in two ways. One was to express abstract notions or ideas which they had not been able to express in their oral native language, because Chinese characters were so rich in its vocabulary. The other was to use Chinese ideogram characters to create their own sets of phonogram characters;*hiragana* and *katakana*. The former was used to pronounce and write and their native language as well as re-write Chinese characters for ease of understanding. The later was used as auxiliaries added to Chinese characters to facilitate reading.

Interestingly, *hiragana* was more used by women because women were not allowed to read Chinese literature as it is. And *katakana* was mainly used by men because men used to read Chinese literature and need it as auxiliary characters. Therefore, a Chinese character in Japan has often two or more ways of pronunciation. For example, the Chinese character denoting a mountain is pronounced as [san], which is close to the original Chinese pronunciation [shan]. It is also pronounced as [yama] which mean a mountain in the native Japanese language. Japanese allocated to each Chinese character their own pronunciation of the native language, if any, corresponding to the meaning of that

character.

2.3 Indonesian

The current language which is largely spoken in Indonesia is rooted from a local language called "Melayu" spoken in the east coast of Sumatra Island and Malay Peninsular in the 7th century. It was basically the language for the local traders in that region. Under the Islamic influence in 14th century, Malayu was bestowed the characters called "Jawi", an off shoot of Arabic alphabet. Then later with the British colonial domination, its characters were changed into Roman alphabet.

Modern Indonesian only uses 26 alphabetical letters as English does. In terms of the structure, Indonesian language is simpler than western languages. It has basically no tense. "Saya pergi ke sekolah" meaning "I go to school" can be used to mean present, past or future. So if you mean to say about the past, you must add an adverb such as kemarin (yesterday). It does not have conjugation of verbs depending on the gender or the number of the subject words, which often occurs in the western languages. In Indonesian, a verb "makan" (eat) can be used in the same way as in "Saya makan, (I eat.), "Kamu makan. (You eat.) Dia makan (She eats.) or "mereka makan."(They eat.).

A special feature of Indonesian is that it can increase the variety of words by adding a prefix or suffix. If you put " ~an" to the end of a verb, you can make a noun. "Makan" (eat)+ an = "makanan" (food). If you add "ter" in front of an adjective, you can make a verb. "ter+ busar (big)"= "terbesar" (expand). If you sandwich a verb with "men" and "kan", you can turn an intransitive verb to a transitive verb. "Men + buri (buy) + kan"= "menburikan" (to buy something). You can make a passive sentence putting "i" at the end of a verb. "Diperbaik" (improve)) + i = "diperbaiki" (to be improved).

In terms of the vocabulary, it is estimated to be limited at the early stage of Melayu. Then Malaysian merchants brought many words from Sanskrit and Arabic. These

words included "singa" (lion), "gaja" (elephant), and "bahasa" (language). During Dutch colonial administration, a huge body of Dutch vocabulary, presumably about 20% of the total vocabulary of Indonesian, was imported. These included "kantor" (office), "sekolah"(school), "departemen"(department), and "democrasi"(democracy). An interesting aspect of such importation of western words was that together with the words themselves Indonesians also brought in the abstract concept such as democracy and independence.

There seem to be a general rule in Indonesian language that the western words ending with "~ion" can be transformed into Indonesian by changing the suffix into "si" as in the case of "demonstrasi, "administrasi", and "realizasi". In this way Indonesians introduced into their culture and society western concepts and ideas along with the corresponding words which denote them. Thus it can be said that many of the Indonesian words denoting western concept or ideas are rooted from western languages such as Dutch. The indigenous Indonesian vocabulary is rather limited.

Chapter 3 : Role of Interpreter and its Constraints

3-1 Role of Interpreter

In Chapters 1 and 2 above, I have examined the three different languages: English, Japanese and Indonesian in terms of their historical background, grammatical structure and evolution of vocabulary. The role of an interpreter is to transmit the message spoken in one language to another as correctly and speedily as possible. Correctness is crucial because incorrect interpretation may cause further problems in communication between foreign speakers and listeners.

3.2 Constraints on Interpreter

The deep problem with an interpreter of a foreign language is that there is no identical language in all terms in structure, grammar and of course, vocabulary, although

some similarities may exist across languages.

3-2-1 Word Order

One of the persistent headaches of an interpreter is that the word order in a sentience differs between the source language and the output language. In the Ural-Altaic languages, typically Japanese, the subject phase usually comes at the end of the sentence whereas in English it comes at the beginning. The Japanese equivalent of "I love you from the bottom of my heart." is "I (watashiwa) you (anatao) from the bottom (kokorokara) love (aishiteimasu). So an interpreter from Japanese to English must wait until the speaker finishes the sentence before he or she start interpreting, because there is a risk that the speaker may end up saying like "I you from the bottom of heart don't love".

In this case, the interpreter must memorize or jot down the part "I you from the bottom of heart" until her or she can confirm the final mode of the sentence, positive or negative. This really means that there is no such thing as a simultaneous interpretation between the languages whose word orders are different. It may be possible between English and Chinese whose word orders are similar. The Chinese equivalent of "I love you from the bottom of my heart" is "Uo(I) cong wo xin di (from the bottom of my heart) Ai (love) Ni (you)". So an interpreter from Chinese to English can start interpreting once he or she hears the world" Ai" without waiting for the end of the sentence because at that moment, the sentence proves to be positive.

3-2-2 Mismatch of Vocabulary

Mismatch of vocabulary is a common phenomenon in the usage of languages occurring when different people name the same thing or concept differently. This is also problematic for an interpreter. For instance, the Japanese word for "contribute" is "kokensuru", which is more often than not used only in a positive sense such as in "contribute to peace" or "contribute to success". However, English connotation of "contribute" is case neutral. It can be used in either positive or negative context such as in "contribute

to economic depression" or "contribute to failure". In this case, the Japanese interpreter has to think about other word than "koukensuru" to avoid misunderstanding on the part of listeners.

"Governance" is often translated into a Japanese word "touchi" whose nuance is somehow of top-down nature as in "reign". So there is no symmetrical translation of the word "govern" into Japanese. The word for "democracy" in Japanese is "minshu-shugi" which was the word imported from Chinese in earlier period as explained in Chapter 2-2. "minshu" means "people first" and "shugi" means "principle". So the correct meaning of "minshu-shugi" is "people first principle", which differs from the intrinsic meaning of "democracy" which is about the form of government, rule, or influence based on people's will.

Such mismatch occurred because there did not exit exactly the same concept as democracy when it was imported to Japan in early 18th century. So Japanese borrowed from the Chinese vocabulary to translate "democracy" into Japanese. This makes a strong case that when abstract words and the concept denoted by such words are imported to one language from another, it is extremely difficult to bestow the correctly matching translation to that words. An interpreter must know such mismatch of words in every situations and if necessary, try to correct the difference in the nuance of the words by adding extra explanation by his or her mouth.

3-2-3 Asymmetry of Vocabulary

As noted in Chapter 2, the size of vocabulary differs across languages depending on their historical evolution and the nature and living condition of the people using a language. It is said that in order to understand the contents in general sense, one needs to know 3000 words in English, 2000 words in French, 10000 words in Japanese and perhaps much less in Indonesian if the imported words are deducted.

There may be a symmetry in verbs such as "sleep", "hit"

"eat" and "run" but when it comes to abstract nouns such as "democracy", "coordination" and "partnership", huge gaps in the volume of vocabulary among languages exist. This causes another headache to an interpreter. Theoretically speaking, if an interpreter tries to convey a message from Language A with 10,000 strong vocabulary into language B with 500 vocabulary, he or she must try to explain a single word of Language A by using a number of words of Language B. An Indonesian -Japanese interpreter must use more Indonesian words to interpret a single Japanese word particularly when the world in question signifies rather abstract meaning. Therefore, an interpreter is required to understand the exact connotation of the words in both source and output languages.

3-2-4 Difference in Language Culture

Last not least, an interpreter is often puzzled with the differences of language culture. Native speakers of a language bring to their linguistic expressions various attributes of their culture and social behaviors. This is particularly conspicuous between Japanese and English. Japanese culture tends to value order, harmony, homogeneity, consensus, and avoiding risks. The English speakers, notably Americans, on the other hand tend to value dynamism, diversity, heterogeneity, creative destruction and taking risks. For instance, a Japanese word for "consider" is "kentosuru", but when a Japanese business person says "kentou itasimasu" (We will consider it), what he or she really means is "We would not take that proposal". As Japanese value harmony, they do not want to use a direct word, when using that word may offend the feeling of others. So the correct interpretation of "ken-tosuru" in this case is not "consider" but "do not accept" in the interest of not misleading the American business counterpart. Here, an interpreter must have not only linguistic expertise but cross-cultural communication ability, which will be yet another challenging profession.

In Place of a Conclusion

The language is one of the most complicated and puzzling human creation. The role of the interpreter is crucial and

the interpreter is required not just of linguistic ability in both languages but of deep understanding of the structure and the historical evolution of the languages he or she deals with as well as the sensitivity of the cultural differences of the countries or regions of the native speakers of the languages.

Japan International Cooperation Center, a private organization created in 1977 to promote international study, training and exchange programs, has in its command 1096 interpreters in 31 different languages, mainly those of the third world countries. They serve not only as an interpreter but as facilitator and cross-cultural communicator working day and night to minimize various constraints and difficulties in interpretation. We cannot dispense with such dedicated interpreters to promote international exchange and cooperation in our bid to create a peaceful and prosperous world in the 21st century.

Reference:

"List of English Words of Anglo-Saxon Origin" by Wikipedia
"List of English words of French origin"by Wikipedia
"List of Greek and Latin roots in English" by Wikipedia
"History of English for Beginners" by Hotta Ryuuich
"History of Japanese" by Nakami Yamaguchi
"Structure of Indonesian Language" by Masashi Hurihata

言語構造の違いが通訳に及ぼす影響
〜英語、日本語、インドネシア語通訳の事例から（要約）

JICE

一般財団法人日本国際協力センター
特任部長 山本愛一郎

　言語は人が創造したもののうち、最も複雑で混乱を起こすものである。世界には 6900 以上の言語があるが、それぞれ構造、文法、語彙数も違うため、これら異なった言語間の意思疎通を図るプロフェッショナルである通訳の抱える制約や困難は多い。言語間の語順の違い、語彙間の不一致、語彙の量の違い、言語文化の違いなどを十分に配慮した通訳が必要になる。日本国際協力センターでは、言語能力のみならずこれら言語間の違いに精通したコーデネーターと呼ばれる 31 言語 1,096 人の人材が活躍している。かれらの存在なくしては、国際協力や交流は円滑に進まない。

The theory of nonlinear function model of the structure of income and expenditure to make a rational decision financially

JICE

Kenji Yamana

Senior Assistant to the Executive Directors of Japan International Cooperation Center(JICE)

1. The point of view for the theory

When we make a rational decision financially to choose one out of the two kinds of products to produce more considering the structure of income and expenditure, we generally suppose that the variable cost and income have a constant ratio per its one unit of products separately. That is, the variable cost and income have a linearity to its one units of products separately.

Under this condition, when we make a decision financially to choose one out of the two kinds of products to produce more without changing the fixed cost, we automatically choose one kind of product whose marginal profit is more than that of the other product.

But practically, when we produce one kind of product more, the ratio of the variable cost per one unit of increased products decreases gradually due to merit of scale of the cost and the increase of the price bargaining power of purchase.

And the price per one unit of products also decreases gradually due to the change for the worse of supply and demand and the price bargaining power of sale. In accordance with this situation, the ratio of the income per one unit of increased products decreases.

Considering the realistic situation such that there is not always linearity in the variable cost and income of increased products compared with the volume of the products, we need to establish a creative theory to make a rational decision financially which is different from that of the stereotype decision of the concept of linearity.

In this thesis, I adopt the precondition such that there is not linearity but nonlinearity in the variable cost and income of increased products compared with the volume of the increased products. And I establish the creative theory of nonlinear function model of structure of income and expenditure to make a rational decision financially.

2. The precondition for the nonlinearity function model of the structure of income and expenditure

(1) Suppose the decision is made to maximize the profit.
(2) Let k be the volume of product A when we make a decision.
(3) Let b be the fixed cost.
(4) Suppose we choose one kind of the products out of ProductA and ProductB to produce $(x - k)$ without changing the fixed cost.
(5) Suppose there are no stocks of products. Hence the volume of products is equal to the volume of sales.

3. The nonlinear function model of the structure of income and expenditure

3-1 The setting of the nonlinear function model of structure of income and expenditure

3-1-1 The logarithmic conversion of the volume of the products compared with income and expenditure

Let x be the total volume including k to produce after making a decision.
Let y be the total income and the total expenditure separately compared with x.
Suppose the number of data is n.
Let
$P_1(x_1,y_1),P_2(x_2,y_2), \cdot \cdot \cdot \cdot \cdot ,P_{n-1}(x_{n-1},y_{n-1}),Pn(x_n,y_n)$
be the points of each data consisting of the total volume, the total income and the total expenditure.

Considering the situation such that the ratio of the increase of the income and the expenditure of the increased products gradually decreases according to the increase of the volume of the products, the linear formula is to be made.
Hence each x after logarithmic conversion is to be used in order to calculate the linear regression formula.

The theory of nonlinear function model of the structure of income and expenditure to make a rational decision financially

JICE

Suppose

$X = \log_e(x+1)$ ----- ①

is the formula for logarithmic conversion.

3-2 The determination of the nonlinear function of the structure of income and expenditure

3-2-1 The determination of the nonlinear function of expenditure of ProductA

Let

$y = sX + t$ ---- ②

be the formula to be regressed to.

Let

$$f(s,t) = \sum_{k=1}^{n} \left(sX_k + t - y_k \right)^2 \text{ ---- ③}$$

be the function to denote the differences between the function and the data with respect to the expenditure of ProductA.

Differentiating ③ partially with respect to s and t, let

$$\begin{cases} \dfrac{\partial f(s,t)}{\partial s} = 0 \text{ ---- ④} \\ \dfrac{\partial f(s,t)}{\partial t} = 0 \text{ ---- ⑤} \end{cases}$$

be the simultaneous equations to be solved.

Let a be the solution of the simultaneous equations ④⑤ with respect to s.
Let b be the solution of the simultaneous equations ④⑤ with respect to t.
Hence we have

$y = aX + b$ ----- ⑥

as the linear regression formula with respect to the expenditure of ProductA according to ② .

Hence we have

$y = a\log_e(x+1) + b$ ----- ⑦

as the final nonlinear regression formula with respect to the expenditure of ProductA according to ① , ⑥ .

3-2-2 The determination of the nonlinear function of expenditure of ProductB

b is the solution of the simultaneous equations ④⑤ with respect to t according to 2.(3).

Hence the formula to be regressed to is given by

$y = uX + b$ ---- ⑧

Let

$$f(u) = \sum_{k=1}^{n} \left(uX_k + b - y_k \right)^2 \text{ ---- ⑨}$$

be the function to denote the differences between the function and the data with respect to the expenditure of ProductB.

Let c be the solution of

$f'(u) = 0$ ----- ⑩ .

Hence we have

$y = cX + b$ ----- ⑪

as the linear regression formula with respect to the expenditure of ProductB according to ⑧ .

Hence we have

$y = c\log_e(x+1) + b$ ----- ⑫

as the final nonlinear regression formula with respect to the expenditure of ProductB according to ① 、 ⑪ .

3-2-3 The determination of the nonlinear function of income of ProductA

The volume of products is equal to the volume of sale according to 2.(5).
Hence let

$y = vX$ ---- ⑬

be the formula to be regressed to.

Let

$$f(v) = \sum_{k=1}^{n} \left(vX_k - y_k \right)^2 \text{ ---- ⑭}$$

The theory of nonlinear function model of the structure of income and expenditure to make a rational decision financially

JICE

be the function to denote the differences between the function and the data with respect to the income of ProductA.

Let p be the solution of

$f'(v)=0$----- ⑮

Hence we have

$y=pX$---- ⑯

as the linear regression formula with respect to the income of ProductA according to ⑬ .

Hence we have

$y=p\log_e(x+1)$----- ⑰

as the final nonlinear regression formula with respect to the income of ProductA according to ① , ⑯ .

3-2-4 The determination of the nonlinear function of income of ProductB

After replacing v with w and replacing p with q in 3-2-3, we also have

$y=q\log_e(x+1)$----- ⑱

as the final nonlinear regression formula with respect to the income of ProductB similarly.

3-3 The nonlinear function model of the structure of income and expenditure to make a rational decision financially

3-3-1 The nonlinear function model of the structure of income and expenditure

According to 3-1-1、3-2-1、3-2-2、3-2-3、3-2-4 , we have four kinds of nonlinear functions as follows.

The nonlinear regression formula with respect to the expenditure of ProductA is given by

$y=a\log_e(x+1)+b$----- ⑦

The nonlinear regression formula with respect to the income of ProductA is given by

$y=p\log_e(x+1)$----- ⑰

The nonlinear regression formula with respect to the expenditure of ProductB

$y=c\log_e(x+1)+b$----- ⑫

The nonlinear regression formula with respect to the income of ProductB is given by

$y=q\log_e(x+1)$----- ⑱

Hence the fluctuation of income and expenditure is as fpllows when we choose one kind out of two kinds such as ProductA and ProductB to produce $(x-k)$ units more.

3-3-2 The fluctuation of income and expenditure to increase Product A

The point of expenditure moves along the curve ⑦ .
The point of income moves along the curve ⑰ .

3-3-3 The fluctuation of income and expenditure to increase Product B

The point of expenditure moves along the curve ⑦ up to the volume k of products.
The point of income moves along the curve ⑰ up to the volume k of products.
After the volume k of products, the point of expenditure moves along the curve
$\{c\log_e(x+1-k)+a\log_e(k+1)+b\}$.
After the volume k of products, the point of income moves along the curve $\{q\log_e(x+1-k)+p\log_e(k+1)\}$

3-3-4 The nonlinear function model of the structure of income and expenditure to make a rational decision financially

According to 3-3-2 and 3-3-3, the nonlinear function model of the structure of income and expenditure to make a rational decision financially is given by
$f(x)=[\ \{q\log_e(x+1-k)+p\log_e(k+1)\}-\{c\log_e(x+1-k)+a\log_e(k+1)+b\}]-[\{p\log_e(x+1)\}-\{a\log_e(x+1)+b\}]$--- ⑲

The theory of nonlinear function model of the structure of income and expenditure to make a rational decision financially

JICE

4. The theory of the nonlinear function model of the structure of income and expenditure to make a rational decision financially

4-1 The preconditions for the theory of the non-linear function model of the structure of income and expenditure to make a rational decision financially

At least we need improvement of profit to produce more in order to have a chance to consider to increase the volume of the products.

Hence with respect to ProductA,
If
f(x)= ⑰ - ⑦ ,
f'(x)={$p\log_e(x+1) - a\log_e(x+1) - b$}'
　　　={$(p-a)\log_e(x+1) - b$}'
　　　=$\frac{p-a}{x+1} > 0$
and
x+1 > 0
Hence
p $-$ a > 0----- ⑳

In a similar way ,with respect to ProductB
q $-$ c > 0----- ㉑

4-2 The theory of the nonlinear function model of the structure of income and expenditure to make a rational decision financially

According to ⑳㉑㉒ ,the preconditions are as follows
　p $-$ a > 0----- ⑳　q $-$ c > 0----- ㉑　0 $<$ k $<$ x---- ㉒

The precondition for the theory of the nonlinear function model of the structure of income and expenditure to make a rational decision financially is given by
f(x)
=[{$q\log_e(x+1-k)+p\log_e(k+1)$} $-$ {$c\log_e(x+1-k)+$
$a\log_e(k+1)+b$}] $-$ [{$p\log_e(x+1)$} $-$ {$a\log_e(x+1)+b$}]
= $\log_e(x+1-k)^{q-c}(x+1)^{a-p}(k+1)^{p-a}$ ---- ㉓

If x=k,
f(k)
=$\log_e(k+1-k)^{q-c}(k+1)^{a-p}(k+1)^{p-a}$ ---- ㉓
=0----- ㉔

Now
f'(x)
=$\frac{1}{(x+1-k)^{q-c}(x+1)^{a-p}(k+1)^{p-a}}$ ・$(k+1)^{p-a}${$(q-c)$
$(x+1-k)^{q-c-1}(x+1)^{a-p}$ +
$(x+1-k)^{q-c}(a-p)(x+1)^{a-p-1}$}

$=\frac{\{(q-c)-(p-a)\}(x+1)+(p-a)k}{(x+1-k)(x+1)}$ ---- ㉕

According to ㉕ ,p $-$ a > 0----- ⑳ ,q $-$ c > 0----- ㉑ ,
0 $<$ k $<$ x---- ㉒

ⅰ)Suppose q $-$ c $>$ p $-$ a,

Whenever 0 $<$ k $<$ x and according to f'(x) $>$ 0,f(x) monotonically increases.
And according to ㉔ , f(k)=0.
Hence f(x) > 0
Hence whenever q $-$ c $>$ p $-$ a , ProductB is chosen for all x such that 0 $<$ k $<$ x .

ⅱ)Suppose q $-$ c $<$ p $-$ a

(x+1 $-$ k)(x+1) is the denominator of f'(x) such that
(x+1 $-$ k)(x+1) > 0----- ㉖

{$(q-c)-(p-a)$}(x+1)+(p $-$ a)k which is the numerator of f'(x) is a linear function with a negative slope with respect to x----- ㉗

Hence

ⅱ) $-$ ⅰ)
Suppose x=k and ㉗ =
{$(q-c)-(p-a)$} (k+1)+(p $-$ a)k
=(q $-$ c)(k+1) $-$ (p $-$ a) $\leqq 0$----- ㉙
According to ㉖㉗、f'(x) $\leqq$ 0 for all x such that k $\leqq$ x.
Hence f(x) monotonically decreases.

The theory of nonlinear function model of the structure of income and expenditure to make a rational decision financially

JICE

And according to ㉔ ,

$f(x) \leqq 0$

Hence

whenever $q - c < $ p-a and $(q - c)(k+1) - (p - a) \leqq 0$, ProductA is chosen for all x such that $0 < k < x$.

ⅱ) − ⅱ)
Suppose x=k and ㉗ =
$\{(q - c) - (p - a)\}$ (k+1)+(p-a)k
$=(q - c)(k+1) - (p - a) > 0$----- ㉚

According to ㉖ ㉗、 whenever $k \leqq x$, there exists real number x such that $f'(x) > 0$.

And according to ㉖ ㉗ ㉚、 whenever $k \leqq x$, f(x) is the function such that 0 →monotonically increasing → having a relative maximum → monotonically decreasing.

Hence whenever $k < x$,there exists only one real number solution named α of the equation ㉓ which is

$\log_e(x + 1 - k)^{q-c} (x + 1)^{a-p} (k + 1)^{p-a} = 0$ ---- ㉛

Hence whenever $q - c < $ p-a and $(q - c)(k+1) - $ (p-a) > 0

ⅱ) − ⅱ) − ⅰ) whenever $k < x < α$
ProductB is chosen.

ⅱ) − ⅱ) − ⅱ) whenever $α \leqq x$
ProductA is chosen.

5. Conclusion

I establish the theory of nonlinear function model of the structure of income and expenditure in order to make a rational decision financially to choose one out of the two kinds of products to produce more considering the realistic situation such that there is nonlinearity in income compared with the volume of the products and in expenditure compared with the volume of the products.

Definition
Suppose there are two kinds of products such as Product A and Product B to produce more.

Let k be the volume of product A when we make a decision.

Let x be the total volume to produce after making a decision.

Let b be the fixed cost.

Suppose $y=a\log_e(x+1)+b$ is the nonlinear function model of the expenditure of Product A.

Suppose $y=p\log_e(x+1)$ is the nonlinear function model of the income of Product A.

Suppose $p - a > 0$

Suppose $y=c\log_e(x+1)+b$ is the nonlinear function model of the expenditure of Product B.

Suppose $y=q\log_e(x+1)$ is the nonlinear function model of the income of Product B.

Suppose $q - c > 0$

Conclusion
The nonlinear function model of the structure of income and expenditure is given by

$f(x)= \log_e(x + 1 - k)^{q-c} (x + 1)^{a-p} (k + 1)^{p-a}$

Then

ⅰ) Suppose $q - c > p - a$
Then the rational decision financially to produce more is Product B.

ⅱ) Suppose $q - c < p - a$

ⅱ) − ⅰ) Then whenever $(q - c)(k+1) - (p - a) \leqq 0$
Then the rational decision financially to produce more is Product A.

ⅱ) − ⅱ) Then whenevr $(q - c)(k+1) - (p - a) > 0$
Let $\log_e(x + 1 - k)^{q-c} (x + 1)^{a-p} (k + 1)^{p-a} = 0$
be the equation to consider.
Then there exists only one real number solution of the equation named α.

ⅱ) − ⅱ) − ⅰ)
The rational decision financially to produce more is Product B whenever $k < x < α$.

ⅱ) − ⅱ) − ⅱ)
The rational decision financially to produce more is Product A whenever $α \leqq x$.

The theory of nonlinear function model of the structure of income and expenditure to make a rational decision financially

Even though $q - c < p - a$, the rational decision financially to produce more is Product B whenever $k < x < α$. This established theory means that the rational decision financially depends on not only $q - c < p - a$ but $(q-c)(k+1) - (p-a) > 0, α$ and x considering the realistic situation such that there is nonlinearity in income compared with the volume of the products and in expenditure compared with the volume of the products.

Thinking much of this theory is so important due to the fact that there is nonlinearity in the structure of income, expenditure and the volume of the products.

Based on this theory, making a much more rational decision which fits the market mechanism contributes to not only the organizations but also the whole market.

Concluded

Evaluation of Training in Japan for the Saudi Japanese Automobile High Institute Project

JICE

Toshio Namai

Director General for Middle East Cooperation
International Training Department

Hiroshi Imai

Project Manager, Saudi Japanese Automobile High Institute (SJAHI) Project
Administration & Overseas Project Division
International Training Department
Japan International Cooperation Center

1. Outline of Saudi Japanese Automobile High Institute Project

1-1. Background of the Project

H.R.H then Crown Prince Abdullah bin Abdul Aziz, former King of the Kingdom of Saudi Arabia (KSA) visited Japan in October 1998. At that time and from then on, population of young generation in the KSA has been increasing rapidly. The Saudi Arabian Government implemented the policy of so-called "Saudization", which planned to promote expansion of employment of Saudi Arabian nationals by developing vocational training. Saudization was described as one of the most urgent issues in each Saudi Five-Year Development Plan. For the realization of Saudization, it was considered indispensable to provide vocational training with a level that satisfied requirement of the private sector in the KSA. Technology for automobile maintenance was picked up as the most important vocational training subject and the KSA requested the Japanese Government for cooperation with establishment of a vocational institute in this field in the KSA. The KSA and the Japanese Government entered into the Agreement on Establishment of an Institute for Improving Automobile Maintenance Technology.

The Japanese Government started assistance for the automobile maintenance sector of the KSA as a public-private partnership project. Both the Saudi and the Japanese governments welcomed joint efforts by Japan Automobile Manufacturers Association (JAMA) and Japan Automobile Distributers in the KSA (JADIK) concerning establishment of an institute in the KSA for the purpose of contributing to human resource development of Saudi nationals, especially transferring related technology to the younger generation of the KSA by utilizing supports from the Japanese side.

The Phase I and the Phase II of the Saudi Japanese Automobile High Institute (SJAHI) Project which started in September 2001 and ended in August 2009 were conducted as part of Japan's Official Development Assistance (ODA) implemented by Japan International Cooperation Agency (JICA). The institute was a nonprofit institute and opened in September 2002, offering two-year technical education in automobile maintenance mainly for Saudi high school graduates. The Saudi Government provided with land, JADIK and JAMA shared its construction cost and the Japanese Government bore costs for long- and short-term Japanese experts, training for SJAHI management, staff, instructors and students, while JADIK and Human Resources Development Fund (HRDF) of the Saudi Government bore its operation costs.

Outline of the Saudi Japanese Automobile High Institute is as follows:

Table 1. Outline of SJAHI

Type of Institute	Two-year technical vocational institute (junior college)
Main Target	Graduates from high schools (Mainly 22 years old and under)
Number of Students Admitted	500 (250 per batch)
Number of Management & Staff	90 including 53 instructors & teachers (31 technical instructors, 15 teachers)
Capacity of Dormitory	300
Curriculum	Automobile maintenance course (Equivalent to the third grade automobile technician course in Japan)
Location	Located at southeast of Jeddah City, approximately 32 km from the center of the city

(Source)"Saudi Japanese Automobile High Institute Gaiyo", December 31, 2017, JICE

After the termination of JICA assistance followed by "graduation" of the KSA from the OECD DAC List of ODA Recipients in 2008, the project assistance was passed on to Ministry of Economy, Trade and Industry (METI) of

Complications of the Language and the Constraints on the Interpreter

Japan after the Phase III which started in September 2009.

With the number of graduates exceeding 2800 in 2017, SJAHI has become one of the most reputed technical schools in the region.

1-2. Supports from the Japanese Side for the Phase I (September 2001 through August 2006) and the Phase II (September 2006 through August 2009)

1-2-1. Dispatch of Experts

Two chief advisors and two project coordinators were dispatched for project management. In addition, seven long-term automobile technical experts in the fields of curriculum supervision, engine, chassis and electricity were also dispatched for the purpose of technology transfer. The he number of long-term experts totaled eleven. Besides long-term experts, seven short-term experts in the various areas such as evaluation and grading of students were dispatched.

Table 2. Outline of Training in Japan during the Phase I and the Phase II

Program	Participants	Period
First Training for automobile maintenance technology	Five newly graduated from technical colleges	From September 2001 to May 2002 (9 months)
Training for Project Management	Deputy Governor of TVTC* in charge of SJAHI Project	March 2002 (5 days)
Training for Project Management	Director of SJAHI	March 2002 (11 days)
Second Training for automobile maintenance technology	Five newly graduated from technical colleges	From October 2002 to June 2003 (9 months)
Training for student evaluation, curriculum creation and instructor guidance	Deputy Director / Education Manager of SJAHI	From February to March 2003 (11 days)
Training for administration and management of an institute	Administration Manager of SJAHI	From February to March 2004 (23 days)
Third Training for automobile maintenance technology	Three graduates from SJAHI	From March to June 2005 (3 months)
Fourth Training for automobile maintenance technology	Two graduates from SJAHI	From November 2008 to March 2009 (4 months)

(Note)TVTC: Technical and Vocational Training Corporation, KSA
(Source)"The Joint Final Evaluation Report for the Saudi Japanese Automobile High Institute Project," Jeddah, March 13, 2006, JICA

1-2-2. Provision of Machinery and Equipment

Machinery, equipment and materials necessary for instruction were provided by the Japanese side with the total amount of approximately 454 million yen.

1-2-3. Training of Saudi Counterparts in Japan

Nineteen counterparts received training in Japan in respective fields under the counterparts training program of JICA. Outline of training in Japan during the two phases is shown in Table 2.

2. Evaluation of Training in Japan

2-1. Comparison of Training in Japan after the Phase III (starting September 2009) with that of the Phase I and the Phase II

2-1-1. Training for Instructors

Participants in the first and the second training courses for automobile maintenance technology in Japan in the Phase I were newly joined instructors in SJAHI who were newly graduated from different technical colleges from automobile maintenance and had no basic knowledge and technology for maintenance nor experience of working at automobile maintenance shops of dealers at the moment of enrollment. As a result, they had to start studying basic technology and skills for automobile maintenance in Japan. The training courses for nine months were necessary for this, but they could not study more advanced nor latest technology because they did not have enough time and basis for such a further study.

Even in the case of participants in the third training courses for automobile maintenance technology in Japan to which three graduates from SJAHI were invited and joined, they still had lacked in the experience of working at automobile maintenance shops, although they acquired basic technology and skills after two years' study at

SJAHI. They participated in the training courses prepared by several Japanese automobile manufacturers and mainly studied basic maintenance technology, because they came to Japan just after they graduated and their technical level was not sufficient to study current technology due to insufficient practical working experience.

After the Phase II, JICE was appointed to coordinate training courses in Japan for SJAHI. Two participants in the fourth training courses for automobile maintenance technology in Japan were also graduates from SJAHI and came to Japan after two years' experience as instructors after their graduation. They had more knowledge and skills than participants in the third training course and had more potentiality to get more advanced and latest technology training.

Since the beginning of the Phase III, JICE has managed and coordinated the SJAHI Project as an implementing body of the related subsidy for the project funded by METI. As for training for instructors in Japan, JICE coordinated training courses for 31 trainees while JICA did so for 15.

Difference between participants in training for instructors in Japan in the Phase I and II and those in recent years is that the latter had experience of not only instructors but also mechanics. SJAHI choose candidates for new instructors from graduates from SJAHI who were working at automobile maintenance shops who were members of JADIK. Graduates from SJAHI were required to work at JADIK shops at least for three years. They became qualified to be recruited as instructors only after three years of work. As a result, all the newly scouted instructors of SJAHI have had experience of both two years' study at SJAHI as students and working at automobile maintenance shops for three years or more. Most of newly joined instructors in SJAHI actually have had a career of over three years. They have had more practical knowledge and skills in addition to the basis which they acquired at SJAHI. Moreover, they took part in training courses for newly joined instructors (called "apprentice instructors") which were well-arranged by SJAHI and held for a time period of one year or two, before they were sent to Japan.

Contents of training courses in Japan for SJAHI instructors have also changed reflecting change in qualification of the newly joined instructors. Trainees could study more advanced technology based on higher level of basic technology and the skills they had. They were able to study newer and the newest technologies trained in major Japanese automobile manufacturers' training centers. They were also able to study instruction and teaching methods as instructors.

2-1-2. Training for Management

Trainees in counterpart training in Japan in the Phase I took part in what is called "counterpart training courses." These courses mainly consisted of classroom lectures in group with participants of similar training objectives or themes, and of related site visits. Not all the contents of training courses were tailor-made and designed 100% for the SJAHI Project. In addition, only three top management in SJAHI could take part in training in Japan. Though SJAHI was expected to develop by adopting Japanese management style and operation system, the number of management who studied in Japan was too small and the contents of training were not enough to satisfy self-reliant development of SJAHI by utilizing Japanese management methods.

On the other hand, target for training in Japan shifted from top management to middle management after the Phase III. JICE has invited 18 middle management and administration staff to Japan since the beginning of the Phase III of the project. Middle management and administration staff which are the targets of training in Japan are those who served closer to students, instructors in the classroom than top management in SJAHI. They are managing and engaging in daily operations. They have their own version of problems arising from their daily management and operations.

The Phase III training course in Japan mainly consisted of four categories of training: (1) Understanding Japan and Japanese way of thinking (Japanese culture, Japanese business manners and Japanese language conversation), (2) Practical report writing and presentation methods, (3) Site

visit at automobile technology colleges and automobile dealers' shops, and (4) SHOP (Solving Human and Organizational Problems) Seminar.

2-2. Characteristics of Training in Japan after the Phase III

Training in Japan for SJAHI management and instructors is characterized by the four important points: (1) Emphasis on Understanding Japan and Japanese Ways of Thinking, (2) More Practical and Current Technology Training Based on Basic Knowledge and Skills and Experience at Automobile Maintenance Shops, (3) Emphasis on Japanese Management Style and Operation System for Middle Management Training, and (4) Shift to More Practical Training Program for Middle Management Training.

2-2-1. Emphasis on Understanding Japan and Japanese Ways of Thinking

JICE prepared a series of training courses such as Japanese Culture, Japanese Business Manners and Japanese Language Conversation in the beginning of the training in Japan. Japanese Culture Course helps trainees to understand Japanese culture, why Japanese people behave as such. Japanese Business Manners Course gives trainees information of what they should do when they visit companies, associations and schools in Japan, such as ways of greeting and bows, of exchanging name cards, and so on. Japanese Language Conversation help them to greet in Japanese and communicate with Japanese lecturers and trainers by using easy Japanese vocabulary and daily phrases. It also shows them how to order at restaurants or first food shops. Greeting in Japanese is welcomed by companies they visit and help them to build a good human relations and smooth communications.

2-2-2. More Practical and Current Technology Training Based on Basic Knowledge and Skills and Experience at Automobile Maintenance Shops

SJAHI instructors who took part in training courses in

Japan had both academic background and practical experience. They had all graduated from SJAHI and worked at automobile maintenance workshop of JADIC member companies for at least three years or more. Then they were adopted as apprentice instructors and studied basic knowledge and skills for instructors at SJAHI for one or two years. Such background helped them to study more advanced contents with more practical training and current topics. Six or seven Japanese automobile manufacturers usually prepared their own tailor-maid training courses including their unique diagnosis system which was very important for maintenance mechanics to find irregular places, parts and components. They also introduced the latest and current technological information. There were no other training courses which provide several Japanese manufacturers' training in a single training course.

In addition, as instructors were not accustomed to writing reports or presentation, JICE provided them with a training session for Report Writing and Presentation Methods in the beginning of the training course. Then they were required to submit a report daily, while they participated in technological training by Japanese automobile manufacturers. The trainees got gradually accustomed to write a report and became able to make their report even at the final stage of the training consisting of what they learnt and how they would adapt what they learnt in Japan to solve their own problems after returning to the KSA. They also had opportunities to present their action plans.

2-2-3. Emphasis on Japanese Management Style and Operation System for Middle Management Training

Middle management of SJAHI participated in SHOP (Solving Human and Organizational Problems) Seminar after they had finished training courses related to Japan, such as Japanese Culture, Japanese Business Manner and Japanese Language Conversation. The SHOP Seminar was aimed at developing leadership, management and team work skills and as managers of their respective departments by introducing them to the characteristics and excellent points of management and operation system in Japanese companies and organizations. The training

course consisted of lectures, discussion, role playing and final presentation in addition to matching site visits to some Japanese organizations. Thus the participants were given opportunities to understand how they should behave in order to solve personnel and/or organizational problems faced by them as managers for the purpose of achieving group or organizational targets. They were expected to adopt Japanese management style as a key to solve their managerial problems

2-2-4. Shift to More Practical Training Program for Middle Management

In the case of middle management training course in Japan, their duties in SJAHI, an automobile institute for the purpose of bringing up excellent automobile maintenance mechanics, were to develop the quality of SJAHI and maintain sustainable management and operational system. All the middle management have their own challenges at SJAHI and the objectives of training in Japan was to help them to study and understand how to solve the challenges. What is important was not what they learnt but how to make use of what they learnt in the training in Japan and to solve their own challenges after reinstating to SJAHI.

For this purpose, in addition to SHOP Seminar, they were provided with opportunities to visit many automobile technology colleges similar to SJAHI. Some of them were managed by Japanese automobile manufactures or their affiliated or related companies, others were affiliated colleges of the university of technology or independent schools. Other than just attending lectures and practical workshops, they had much time to observe, study, ask questions and understand college management and administration, daily operations, roles of related departments such as student affairs, education and general affairs, examination and evaluation system of students, curriculum creation system, methods to motivate students, management of classes, evaluation of instructors, and so on. They learn establishment of daily practical operations which are controlled by Japanese college management system.

3. Concluding Remark

Since the beginning of the Phase III, SJAHI was expected to develop by adopting Japanese management style and operation system based on the advice of Japanese experts, and also the middle management training course in Japan was newly started.

Furthermore, in order to respond to the actual situation of the SJAHI management and operating structure, the improvements were always made in the contents of training in Japan both for instructors and middle management as mentioned in 2-2-1, 2-2-2 and 2-2-3.

The immediate goal of training in Japan is to improve the individual capacity of the training participants for instructors' skill and management skill for middle-class managers and also to strengthen the management and operating system of SJAHI.

More specifically, the following contents of training were added.

1) Middle Management Training
   ○ Solving Method of personnel and / or organizational problems
   ○ Japanese Management Style
   ○ School Management and Operating System in Japan
2) Instructors Training
   ○ More Practical and Current Advanced Technology Training at several Japanese automobile manufacturers
   ○ Teaching Method Training at Japanese automobile colleges

As a result of the evaluation on the training courses in Japan, it has obtained high evaluation both from the participants and from the executive board members of SJAHI which included the JADIC representatives from the viewpoint of improving individual skills and abilities. However, it is not necessarily highly appreciated from the viewpoint of improving the SJAHI management and operating system.

The main reason of this situation is that many of the ex-participants of Saudi instructors were transferred to other organizations such as government offices, military services, and other vocational training schools, etc. Their job retention rate is not high.

Because it is difficult to train Saudi managers due to its low retention rate, SJAHI employs many third nationality middle-class managers and senior instructors. As a result, the hierarchical structure of SJAHI consists of almost all of Saudi junior instructors and many third nationality middle-class managers and senior instructors, so that the school management is considerably difficult for Saudi principal from the point of view of personnel management and organizational management.

In conclusion, the results of the initial target of training in Japan as expected have not been easily obtained from the viewpoint of improving the SJAHI management and operating system. However, it can be said that SJAHI counterpart training courses in Japan have highly contributed to the improvement of the individual capacity building both for instructors and middle-class managers.

Humans walk with dogs
A Hokkaido dog case study
人、イヌと歩く──北海道犬に関する一考察

Sachiko Yamano
President of Japan International Cooperation Center(JICE)

一般財団法人　日本国際協力センター
理事長　**山野幸子**

はじめに

　JICE は海外と日本の高校生・大学生・若い社会人との交流や研究プログラムのなかで、お互いの文化、社会、価値観などの共通性と違いを学びながら、相互理解を深めてきました。

　本稿は、日本の北海道と沖縄で、先人たちが調査と研究を地道に重ねながら保存してきた日本の、国の天然記念物である北海道犬と、沖縄県の天然記念物である琉球犬を通して、日本と、周辺諸国・地域が人とイヌの移動の上で繋がりを持ってきた足跡について、近年の応用生物学者、獣医等の在来犬遺伝子調査 , 及び透視解析等先端技術の成果が著しい、縄文時代（紀元前 15000―400 年）を研究する考古学の分類とに基づいて紹介します。

　イヌは単独で移動し生きてきた動物ではなく、人とともに移動し人とイヌは相互に依存して生活してきました。そこに各地域の在来犬の研究が、先史時代及び歴史時代と深く関わってきた理由があります。

　アジア諸国が日本より後発で在来犬の保存と調査を開始する場合であっても、在来犬を天然記念物＝受け継ぐ遺産として姿、気質、能力などの標準形を系統化して保存しながら、一方で 1990 年代以降、在来犬の研究分野への適用においても画期的に発展した遺伝子調査等先端技術と協働することで、効率的で、精度が高い調査・研究が期待できます。本稿が、日本人と在来犬の軌跡を紹介することによって、アジアの若い人たち、とりわけ本稿に関わりが深いアジアの考古学及びその先端技術を担う工学・科学技術、応用生物学、生物多様性などに関心が高い学生たちに日本の先行事例が参考になることを願っています。

preface

During the Japan – overseas youth exchange and training, foreign students programs in which JICE has participated for nearly 40 years,

we've learned the differences and common features of other cultures, societies, values, etc., and deepened our mutual understanding.

We have also found a way to further enhance this understanding by looking at Hokkaido and Okinawa.

Hokkaido and Okinawa, which are popular travel destinations for many Asian tourists, have extraordinary dogs with unique characteristics.

Dogs are not animals that roam and live independently. Dogs move together with humans and live as partners through mutual support. This is why research into native dogs are crucial issues in the study of pre-historic times as well as of history .

This article traces the movement of humans and native dogs in Japan, taking cases of the Hokkaido dog and the Ryukyu dog. The Hokkaido dog is designated as a Japanese natural treasure, and the Ryukyu dog is designated as an Okinawan prefectural treasure. Both Japanese native dogs have been preserved by collaborations of dog lovers, amateur researchers, journalists and academics. This article intends to describe how they have traced the origins and steams of Japanese native dogs such as the Hokkaido dog and the Ryukyu dog, and to describe how they are connected with the dogs of neighboring countries. These findings have been proven by genetic research in the 1990's and supported by major classification in archaeological research into the Jyomon period(15000B.C. -400B.C).

Asian countries that are beginning to preserve native dogs and conducting research, despite having a later start than Japan, will have an advantage as they will be able to utilize the efficient genetic research techniques and cutting edge technology such as improvements in X-ray imaging which

has been developed since 1990. Designating their native dogs as natural treasures will also help to maintain standards for these dogs in terms of shape, character and ability.

This article introduces linkages between neighboring countries, as well as between Southeast Asian countries and Japan, through research into the migration and habitats of native people and dogs in Japan.

I hope youth in Asia, in particular students with a keen interest in Archaeology, Science of Applied Biology and Biodiversity, etc., will read and benefit from this article.

(I)The role of dogs in Japan

Having lived alongside humans, the existence of dogs is a reflection of the history of mankind.

Nowadays when we say dogs, we mostly means pets.

People tend to regard dogs as intimate family members because people are familiar with being with dogs.

In Japan dogs wouldn't have been able to migrate and humans have wanted dogs to follow their command.

Proven by zoologists and archaeologists, human beings have become accustomed to living and working with dogs for more than 10,000 years.

Dogs are the first livestock kept by the ancient Japanese.

Firstly, humans and dogs became hunting partners. In Japan, during the Jyomon period(note 1), a pre-historic age in which Japanese natives were called Jyomon people and dogs were required for hunting small animals, wild boars, bears and so forth.

During the Jyomon period, dogs were properly buried in the same way as humans' after their deaths.

Next, when agricultural cultivation was brought from the Continent(China) and the Korean Peninsula together with their cultures, such as bronze, silver, iron and ceramic technology, dogs were not always required for hunting. Also, Buddhism and Chinese characters had started prevailing in Japan and these markers of the upcoming Yayoi period had overlapped with the Jyomon period, especially in northern Kyushu and in western and central Honshu. In those regions, dogs were required mostly as guard dogs to protect paddy fields and houses. Further, dogs were also treated as a source of food by people in the Continent and the Peninsula (China and Korea at that time).

Archaeologists surveyed northern Kyushu, the Western and Central Japan and found that dogs were not buried like people had done in the Jyomon period.

However, the regions of southern Kyushu(including Okinawa), Kii Peninsula, northern Tohoku etc., (where there had little influence of agricultural cultivation from the Continent and the Peninsula,) people supported their lives mainly through hunting (note 2).

Dr. Yuichi Tanabe, who is a notable Japanese zoologist, was the first to investigate historical relationships between human beings and native dogs in Asia scientifically. His theory was published in 1991 by The Society for the Study of Human Animal Relations. He sampled more than 2,500 dogs' blood in Asia and conducted genetic analysis.

According to his research, Hokkaido dogs (Ainu dogs) and Ryukyu dogs (Okinawan dogs)have nearly the same genes, but other Japanese dogs like Shiba and Akita are quite different. Dr. Tanabe concluded that Hokkaido and Okinawa were so remote from Honshu that people had less cultural influence from the Continent and Peninsula(note 3).

He also concluded that people in Hokkaido and Okinawa had the same ancestors, because their dogs were proven to be classified as having the same ancestors.

(note 1) The Jyomon period; approximately dated between 15000B.C. – 400B.C.

(note 2) The Jyomon people had started cultivation of their own, but they still had mainly relied on hunting. People had used dogs as hunting mates whose relationships were closer than that of the Yayoi people in agricultural cultivation.

(note 3)Hokkaido and Okinawa had been influenced by the Continent and the Peninsula, however the influence were different from that of Honshu.

(II)Hokkaido native dogs; Hokkaido dogs [or Ainu dogs] and Sakhalin dogs(or Karafuto inu).

There are two species of native dogs in Hokkaido.

Humans walk with dogs
A Hokkaido dog case study

One is Hokkaido dogs(or Ainu dogs) which were brought from Honshu by the people in the Jyomon period.

Hokkaido dogs had been kept by the Ainu people for hunting animals (bears, deers, etc.) and protecting them from wild animals.

Hokkaido dog is one of the six Japanese native dogs that are designated as natural treasure.

Another is the Sakhalin dogs which were brought from the north of Hokkaido, which are areas now belonging to Russia. Sakhalin dogs had been used as sled dogs, as well as transportation dogs throughout Hokkaido until the 1980's, when couriers replaced them.

 The Japanese Antarctic Research Expeditions were accompanied by Sakhalin dogs. (note4)

(III)Hokkaido dogs (or Ainu dogs)

 Currently the most influential theory is that people in the Jyomon period who had reached and settled in Hokkaido

(the Northern Island of Japan,) are known as the Ainu people.

Recent academic studies have proven that the Ainu people are very similar to the Jyomon people in terms of life style and culture. The Ainu were less influenced by Yayoi culture directly due to Hokkaido being so remote and isolated from Honshu.

Academic studies in Hokkaido on the Jyomon period started later than in the rest of Japan due to Hokkaido having different characteristics from the rest of Japan in prehistoric times.

Hokkaido is biologically bordered by the "Blakiston Line," which categorized the Tsugaru Straits (note 5) as a border for distribution of animal species.

Biologically it showed that in northern parts of the Blakiston Line, there lived creatures which are of different species from the southern part of the Line.

The Blakiston Line shows that animals north of the Line are species of northern animals, which suggests all crea-

tures including people and dogs living in Hokkaido are of and from the Northern areas.

In spite of the above, Dr. Tanabe's 1991 genetic research proved that the Hokkaido dog was proven related to the Okinawan Ryukyu dog.

Furthermore, the Hokkaido dog and the Ryukyu dog are similarly linked with native dogs in Taiwan and specific regions of Indonesia.

 (note4) The Sakhalin dog (Karafuto inu)was emphasized more for their capability of pulling sleds and heavy loads. For this reason, the standardization of Sakhalin dog breeding has not been tightly controlled, and dogs are valued mostly for their strength and other physical characteristics.

 It is extremely difficult to standardize the breed as Sakhalin dogs vary greatly in terms of body shape and appearance. Their ancestry are from Sakhalin, Russia where they were used for pulling sleds in winter, woods and ships in summer.

(note 5) The Tsugaru Straits is the narrow channel between Hokkaido and Honshu.

When we discuss the people and dogs of Hokkaido, the prefecture is divided into 4 parts.

In 1962, Mr. Kanichi Denpo, a journalist and researcher from Hokkaido, classified all Hokkaido dogs into four categories, named for the areas they inhabit: Chitose, Iwamizawa, Hidaka and Akan genealogy. (note 6)

Firstly, Chitose is located 43km south west of Sapporo.
 Chitose later became the center of standardization for Hokkaido dogs breeds.

Secondly, Iwamizawa, which is 41km north east of Sapporo. Thirdly Hidaka, which is located in the southern central part of Hokkaido. Finally, Akan which is around Abashiri and Monbetsu, facing the coast of the Okhotsk Sea.

Dogs in the Iwamizawa area, which includes former Hamamasu as well as Sorachi appear to have been influenced by the arrival of foreign dogs , brought by invading forces landing from overseas on the west coast of Hokkaido. Photos of Iwamizawa-Hokkaido dogs show comparatively large bodies, and faces influenced by Husky type northern dogs in their ancestry. We seldom see the Iwamizawa-Hokkaido dog, which are now believed to be

extinct.

Hidaka is the isolated mountain area where people could not come and go easily.

Hidaka- Hokkaido dogs are the most primitive type, which had not been interbred with other species of Hokkaido dog. It is often seen with a characteristic brindle pattern on its coat.

" Akan" is used in this book's classification system as a symbolic name for the east coast area of Hokkaido. Lake Akan is popular with tourists . The Abashiri Museum preserves the remains of people from the North of Hokkaido and their 400 northern originated dogs. It is proven that the skulls of these 400 dogs are different from those of Hokkaido dogs, which originated in southern areas linked with Okinawan Ryukyu dogs.

Akan- Hokkaido dogs are medium sized and Mr. Denpo's photos show the influence of Sakhalin type northern dogs in their ancestry. They often have a rather long coat compared with Chitose group Hokkaido dog , however the shape and appearance is completely the standard of Hokkaido dog.

(IV)Preservation of Japanese native dogs as natural treasures

The following Japanese dogs are designated as national-level natural treasures in Japan; Hokkaido, Akita, Kai (Yamanashi pref.), Kishu (Wakayama pref. & Mie pref.),Shikoku (all four prefectures in Shikoku) and Shiba dogs. Ryukyu dogs of Okinawa are designated as prefecture- level natural treasures in Japan.

Japanese native dogs, which have accompanied and lived with people, show the features of the time and location in which they existed.

The study of human – native dog relations may contribute to our understanding of issues in human history and society.

 (note 6)Mr. Kanichi Denpo Hokkaido inu Dokuhon 1962
北海道犬読本　誠文堂新光社　1962 年

(V)Hokkaido dog in current times

In terms of the study of humans, Japanese native dogs and archaeological remains, people in Hokkaido and Okinawa

**Humans walk with dogs
A Hokkaido dog case study**

JICE

are Japanese who came to the islands during the first population shift. However, Hokkaido's existence was not generally acknowledged on the map of Japan until 1869 when the Meiji government started to develop Hokkaido.

Hokkaido dogs were used for hunting bears in Hokkaido until the 1960's.
With the Meiji government's development of Hokkaido, people who stopped hunting and started to keep Hokkaido dogs as pets in their families.
The Natural Treasure Hokkaido Dog Conservation Society which was established in 1951. This association has worked toward keeping the species pure and standardizing the Hokkaido dog. It is supported by dog lovers, journalists, vets, the academic circles, prefectural and ministerial officials and citizens.

(VI)Ryukyu dog

Starting Ryukyu dog preservation
Ryukyu dogs have been preserved by the Ryukyu Dog Preservation Association which was founded in 1990 by Dr. Yoshio Arakaki, a veterinarian serving with the Okinawan prefectural government. Dog lovers requested the protection of Okinawan native dogs, which had been used as hunting dogs throughout the Ryukyu Islands.

Dr. Arakaki set up the Ryukyu Dog Preservation Association and conducted a wild range of preservation. He invited Dr. Yuichi Tanabe to the Association as an advisor. Ryukyu dog preservation is based on Dr.Tanabe's genetic survey & theory published in 1991. Dr.Arakaki and his followers have patiently continued work towards standardization of the Ryukyu dog species.
Dr.Arakaki and his followers have cutting edge scientific knowledge on human- dog relationships, having been lectured and advised by Dr.Tanabe. Dr.Tanabe, a leading scientist in the field of genetic analysis and tracing animal ancestry in terms of relationship with humans. Along with Dr. Tanabe, Dr.Arakaki has played a key role in the preservation of Ryukyu dogs for almost 20years. (note 7)
The following is the result of Dr. Yuichi Tanabe's gene research and analysis on dogs in Asia.

Japanese native dogs, Ryukyu dogs, Hokkaido dogs(Ainu dog), Taiwanese native dogs and Indonesian native dogs from specific regions have similar constitutive genes. All of these are regarded to come from Southern Asia 12,000 years ago during the Jyomon period. On the other hand, Japanese native dogs kept in Honshu have similar constitutive genes to native dogs from the Korean Peninsula such as the Korean Chindou dog（珍島犬）and Cheju dog（済州島犬）. Other Japanese native dogs are believed to have come to Japan with humans from the Continent (Mongolia and China) and the Korean Peninsula about 2,300 – 1,700years ago, during and after the Yayoi period and later on. The Hokkaido and Ryukyu islands are isolated from Honshu. In Hokkaido and Okinawa, people and their dogs came to Japan from different directions, and in different time from that of Honshu. Genetic research on native Japanese and Asian dogs is useful for confirming the archaeological theories from the Jyomon (15,000 – 400 BC)and Yayoi (10BC – 3 AC)period.

(note 7)Survey Report on native livestock/ animals in Okinawa prefecture , 1996 年 , 沖縄県教育委員会

Conclusion　結び

　琉球犬とさらに台湾、インドネシア等につながる南方から北海道への人とイヌの移動は、1990 年代の田名部雄一教授らによって研究されました。しかしながら現在、ほぼ存在しない阿寒系と岩見沢系北海道犬の遺伝子調査は２つの系統の北海道犬が、1980 年代後半以降、すでに存在していなかったために、1990 年代の北海道犬遺伝子調査の対象とされていません。この２系統はいずれもロシアなど北方圏に起源を持つ人に伴われた北海道へのイヌの移動と関連が議論されてきました。
　琉球犬の保存に適用された現在の遺伝子調査技術を適用することによって解明される可能性が考えられます。
　現在の動物学や応用生物学及び考古学の先端研究は、過去の遺伝子の調査と分類を可能にしています。北海道におけるロシアはじめ北方圏からの

人とイヌの移動と定住の研究を、北海道犬との関連でさらに進めることによって、北海道は南からの移動と定住及び北方からの移動とで定住の交流地域として、現在考えられている以上に豊かな多文化が存在してきたことが、北海道犬の分類上からも証明できる可能性があります。

Dr. Tanabe's 1991 genetic research proved that the Hokkaido dog was related to the Okinawan Ryukyu dog, the native Taiwanese dog and Indonesian dogs in specific regions. Through genetic research on Akan and Iwamizawa Hokkaido dogs which have been extinct since the late of 1980's, migration and habitats of native people and dogs from Russia and the Northern Regions to Hokkaido, Japan could be explained by current scientific research into the Ryukyu dog in Okinawa.
It has been proven through research into other species that Hokkaido was a "crossing region" where diverse species from both the Northern regions and Japan Islands cohabitated.
This could be further proven by the existence of the Hokkaido dog, which has been preserved by the Japanese people as a Natural Treasure.

　同時に在来犬が絶滅に瀕しているインドシナを含む東南アジア地域においても、在来犬保全は日本の事例が先行する手法で、人とイヌの移動と定住を証明することは容易になってきました。
　イヌは考古学においても重要な研究対象であり、近年、考古学はそれぞれの地域の生活と文化を各分野の科学者との協働で成果を挙げてきました。
　今後も学問のレベラルアーツとサイエンスの合流点として、在来犬を通して人間の生活と社会の発展と変容を学ぶ学問に若い学生や研究者が参画することを勧めたいと思います。

In several countries researchers, for instance in Indonesia, can take advantage of cutting edge technology and come up with accurate and rich analysis by collaborating with preservation organizations which keep total scientific records.

In Japan a good model of collaboration with preservation organizations is the Ryukyu dog (Okinawa), of which preservation started later than other Japanese native dogs. Ryukyu dog preservation has been conducted through collaboration between enthusiastic dog lovers and outstanding gene scientists.
Culturally, Okinawa is closely linked to Indonesia and other South East Asian countries.
In Asia, archaeological and native species research is driven by innovative technology and academic study. Young researchers in these fields have an opportunity to drive future innovation in both liberal arts and science.

END

JICE Collection of Theses and Research Notes

Editor's Note

Arguably, JICE has been working to promote a better understanding of Japan, intentionally or unintentionally, in the process of hosting international students and trainees and contriving to enrich their stay in Japan.

This compendium of research notes delves into "something" that have stimulated foreign students and trainees to understand Japan throughout 40 years of our international activities and attempts to describe such clues and essences in a more expressly and objective manner.

Unlike academic institutions, we work mainly in the frontline of international cooperation and exchanges. It was a challenge for us to make a systematic and theoretical analysis on this theme. However, we have made every effort to systematize as much as possible our findings and knowledge acquired from our daily activities on the ground. We hope that this publication will help enhance further international understanding of Japan

I would like to take this opportunity to express our special thanks to Dr. Naonori Kodate, Assistant Professor, School of Social Policy, Social Work and Social Justice, University College Dublin, Ireland who, in full understanding of the objective of this publication, offered us a special contribution titled "Testing Europe as a Model of Regional Integration : A Perspective from Ireland", an interesting subject for Asia seeking deeper integration.

Atsushi Tsutsumi
Managing Director,
General Affairs Department,
JICE

編集後記

JICE はこれまで、海外の学生、研修生や留学生との交流を通じ、JICE のプログラム参加者の滞在を満足なものと工夫する中で、意図するしないにかかわらず「日本理解」の発信を行ってきた団体である。設立以来４０年を超える歴史の中で、JICE の中にも海外の学生や研修生との出会いを通じて蓄積されてきた日本理解に関する「何か」があるのではないか？　この「何か」をテーマに今回このような JICE Collection of Theses and Research Notes の形で発信することになった。JICE の職場はプロジェクトの現場と実務であるが、今後は日々蓄積されるデータや識見を、アカデミズムのような体系化された論旨展開とは異なるが、現場から感じ体系化した「日本理解」として、特に海外の皆様に少しでもお届けできれば幸いである。

最後に、発刊にあたり、このような趣旨をご理解くださり、ASEAN はじめアジア諸国にとって関心の高い地域統合について、EU をモデルに、特別寄稿として執筆いただいた小舘尚文アイルランド国立大学ダブリン校専任講師に御礼を申し上げたい。（総務部長　堤　敦史）

JICE

Share knowledge and experience.
For our world. For the future.
JAPAN INTERNATIONAL COOPERATION CENTER