

Please write a brief summary and a critical commentary on the article "Lost in Translation." Be sure to use your own words. If you copy words directly from the article, please place quotation marks "" around words or sentences to show that they are from the article. (100%)

LOST IN TRANSLATION

English is the language of science. For researchers who are non-native English speakers, to what extent are they at a disadvantage?

The nervous Japanese postdoc spent two weeks creating slides, 30 hours drafting a script, and 44 hours rehearsing. Altogether, she spent one month away from the bench so that she would not disappoint her supervisors and colleagues during a short informal presentation, in English, before co-workers. Yet they remembered only the mistakes, she says.

Experienced scientists also feel under pressure when speaking in English. Masahiko Takada at the Tokyo Metropolitan Institute for Neuroscience admits that "I sometimes feel frustrated when I have to discuss research data with foreign scientists."

Language mastery, be it of one's native or adopted tongue, provides the communicative ease that says: "I am capable." In science, weak English hinders a successful career. Improve your English proficiency, and

confidence will follow.

Concerns about the dominance of the English language in science are being raised around the world. Researchers in Germany and France, for example, are grumbling about the frustration of working and publishing in English -- and, perhaps more surprisingly, so are those in nations that have typically been viewed as consumers of basic science, rather than contributors.

A recent study in South Korea estimated how much an English-dominated setting for science has cost that nation's scientific development. Kumju Hwang of the University of Leeds, UK, interviewed 15 Korean researchers and said that because of language issue they spend a large proportion of their time preparing presentations and papers, and practicing language skills for discussion.

Being misunderstood

Japan, on the other hand, has a history of translating science into and out of Japanese, so linguistic hurdles are accepted. Most Japanese researchers, when asked about such handicaps, will

typically say that the language of science is English. Although nearly 75% of the 400 life-science journals published domestically in Japan are written in Japanese, these target applied rather than basic science researchers.

Basic science in Japan is becoming increasingly 'English only,' as Japanese-language publications dedicated to those subjects disappear. RIKEN, one of Japan's most comprehensive groups of research facilities, has announced that its scientists published just under 2,000 original reports in English in 2005, and only 174 in Japanese. In Japan, a nation where English is the current language of knowledge production, domestic science society meetings are also moving towards English.

Internationally, reports expressing public concerns about adopting a single language for science appear periodically from different fields and nations -- including those with far greater prowess in English than the Japanese, such as Spain, Germany and Portugal. Such essays and editorials lament the possible negative consequences of English-language dominance on national unity and economic stability in science and business.

"Insecurity in English is a widespread phenomenon," said Ulrich Ammon, professor of German linguistics at the University of Duisburg. "No one German is entirely comfortable speaking and writing in English."

Social inequality

Some European scholars have spoken out against the switch to English. A 2003 Finnish editorial warned that adopting English in Finland would alienate the lay

people from the products of science. In this rallying cry, three Finnish academics contend that if university research focuses exclusively on the use of English, their own language will "gradually lose its ability to depict new concepts and phenomena and their subtle differences." They fear that this trend could create social inequality between those who can and cannot speak English.

Bordons and Gomez found that reports on basic science, particularly in molecular biology and immunology, were published predominantly in English journals, whereas those on applied science were published in national journals in Spanish -- mirroring the situation in Japan. They argued that these non-English journals, which are on the decline for both basic and applied science, are vital for knowledge transfer at the national level.

Two groups within the World Health Organization (WHO) issued a joint statement in 2004 asserting that non-English-speaking scientists prefer to be published in international journals. According to a study on publication preferences in addiction research, published by a different WHO body, this may be problematic in research fields where local traditions and experiences factor into a study.

Move to English

"Japanese scientists must work to communicate and write in English," says Minoru Kimura, a researcher at Kyoto Prefectural University of Medicine. "But they must also present findings in a logical and attractive fashion, which seems independent of language." Perhaps, as Garfield suggests, it is a

cultural, not linguistic, restraint that confines the communicative reach of Japan's researchers.

To build that communicative confidence, Japanese is slowly being eliminated from Japan's primary scientific content. Discussions in many of its newly established research institutes, and some university laboratories, are supposed to be conducted in English. This move to English aims to attract increased international attention and participation. For faster-paced interaction in competitive international settings, the increased exposure to English is beneficial -- especially for younger researchers.

For this reason, Japan's more ambitious science societies are also moving to English-only. It is a move that is reluctantly accepted. "There are members who do not support this

change," says Kimura. "They argue that presentations and subsequent discussions in English at the Japan Neuroscience Society annual meeting are less active than those in Japanese."

Society journals are also switching to English to make Japanese research accessible to scientists from other countries. This development, too, has its critics. Articles published in English only "may be good for Japanese scientists who are proficient in English, but this is not necessarily good for Japan," says Takada.

"It is important to use English as an official language, especially for international participants," says Takada. "However, it is critical to use Japanese for effective communication in, for example, a committee, to ensure that important decisions are sufficiently considered."