

laboratory though it continued to grow in scale. Most of the competent researchers at the Institute transferred to universities. However, there is no doubt that the Central Institute of Industry was the cradle of science and technology in the 1940s as Ahn pointed out.

Transmission of Scientific Ideas and Language

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Modern scientific ideas were transmitted into East Asia via translations. Korean experiences, in comparison with the Japanese and the Chinese, are particularly interesting and illustrating.

The Chinese and the Japanese started to have contacts with the West from the early seventeenth century through the visiting missionaries like Matteo Ricci and Francisco Xavier among others. Yet Koreans had never had any direct contact with the Westerners on intellectual level until the nineteenth century, for Western missionaries did not come. Under the given circumstances the only way of learning science before the nineteenth century was through the imported books from China. Western missionaries translated many books on science into Chinese there.

Koreans started their study of science through the Chinese rendition of Western science, not through Western books. The tradition lingered on even after the opening of Korea in 1876. Though Westerners were formally accepted into their land, Koreans never bothered to learn any of the Western languages as a means of absorbing science. Instead they had eventually switched their transmitter from the Chinese to the Japanese at the turn

of the century. The basic pattern of indirect transmission of scientific ideas continued in the Japanese language period, 1900 - 1945.

Direct transmission of scientific ideas into Korea became finally possible only after 1945. Very soon, however, another difficulty developed for free transmission of scientific ideas among the three peoples of East Asia. Activated by the post-war nationalism, the Chinese started to build their own terminology in science and the Koreans simply stopped their use of Chinese characters.

What we see today is the gradual destruction of Chinese character-based communication system in East Asia as an intermediary language. It is time that East Asians have to start to reestablish something for the losing vitality of their language system for more effective transmission of scientific ideas among the three peoples. Efforts for the device of common scientific terms are highly desirable.

Pan-Paradigm in Korean History of Science

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One of the most important scientific achievements in Korea was recorded by King Sejong of Chosŏn dynasty (1419 - 1452). His academicians and the king himself devoted to the development of many branches of science, i.e., linguistics, astronomy, mathematics, music, calendar making, medicine, measurement, metaphysics, etc. It is clear that these achievements were inspired by one principle: their effort to adapt classical Chinese scientific methods to Korean environment. This also applies to political philosophy of the dynastic Korea in which orthodox confucian doctrine was creatively adapted to the reality of Korea.

History of mathematics in Korea when compared with that of Japan and China, presents peculiar characters, which are considered to have been molded by the same principle mentioned above.

The author defines pan - paradigm as a philosophical principle which has served to promote cultural activity of a certain race in a certain period in its history.

Since both Korea and Japan once resorted to isolationist policy in the past, pan - paradigm could, the author is inclined to believe, be observable in the structures of their cultural activities.

A Comparative Analysis of Perceptions of the Ethos of Science

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The issues addressed in the research effort to be reported derive from the Mertonian tradition of the sociology of science. However, the present research is designed to question and to test the very basic premise of the Mertonian tradition of an undifferentiated and unchanging ethos (normative system) of science. It attempts to answer these questions: "Is the scientific ethos perceived as 'real' by scientists related to the conditions of the practice of science experienced by these scientists?" Or, "if individual scientists are exposed to different conditions of the practice of science, will they perceive adherence to the ethos of science differently?"

The focus of the present research is solely upon the ethos of science, or the moral norms of assumptions of science, as opposed to the technical norms of the scientific method.

These moral norms and assumptions define appropriate patterns of interaction both among scientists themselves and between scientists and those who are representatives of the institutions of society.

Finally, the current research effort may be justified as "filling a gap in the literature" in that it attempts to explore a question which no other single piece of research has explored. It will examine scientists' perception of the entire package of the ethos of science—i.e., both the assumptions of purity, autonomy, and impartiality and the norms of universalism, organized skepticism, communism, and disinterestedness.

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筏船에 의한 제주해협 의 고대 항로에 대하여

제주대 정 공 훈

삼국시대의 백제·신라 등의 일본왕래, 통일신라시대의 장보고의 해상활동, 고려와 몽고의 일본 정벌, 임진왜란 때의 해전 등의 역사적인 해양기록은 많이 있으며, 고려·조선시대에는 반도와 제주의 왕래가 있었던 기록도 허다하다. 또한 이러한 왕래를 하면서 폭풍을 만나 조난하여 표류했던 기록도 있다. 이러한 기록들은 모두 木造帆船에 의하여 항해했을 때의 것이었으나 선사시대의 항해에 관한 기록은 별로 찾아볼 수가 없다. 다만 추정할 따름이다.

여기서 선사시대의 왕래는 筏船(배배)에 의하였을 것이라는 가정을 할 수 있다면, 우선 제주도과 한반도 간의 왕래를 생각할 수 있다. 현대인들은 이들 사이의 거리가 아득한 것으로만 알