Grass-roots Geology – Ijiri Shōji and the Chidanken*

Of the various societies embraced by the Association of Democratic Scientists (Minshu-shugi kagakusha kyōkai, abbreviated as Minka), the only one still quite active is the Society for Corporate Research in Earth Science (Chigaku dantai kenkyūkai, or Chidanken) founded in 1947. The Historical Section of Minka, a similar organization with close relations to Chidanken, also remains in existence by issuing its journal Rekishi hyōron (Historical review). The reason why these two particular organizations have so far survived is found in an element common to both of them, namely, that they consist of local field researchers. This is particularly true of Chidanken, which serves as a meeting place for ‘grass-roots geologists’, the typical member being a provincial teacher’s college graduate now teaching in a primary or secondary school.

There are, of course, many other organizations which promote nationwide cooperation for localized studies. Good examples are the ethnographic study group inspired by the late Yanagida Kunio and a group of amateur astronomers organized by Yamamoto Issei. In the history of science we often encounter the birth of a new research paradigm in some marginal group outside any established academic structure, but not all such groups are necessarily as radical and progressively-minded as Chidanken. Many local historical societies are marked, rather, by an unsophisticated conservatism. The reason why Chidanken still maintains a powerful progressive orientation is due largely to the personal character of its able organizer. The man who has sat in the seat of charisma for two decades since the end of the Second World War is Ijiri Shōji.

Chidanken is not merely a scientific society but a crusading body out to propagate its ideology and methodology. In such a group, not only charisma but also a ‘bible’ is indispensable equipment. To meet this need, Ijiri wrote his Koseibutsugaku (Paleontology, 1949), which was reprinted in 1954 under the title Kagakuron – koseibutsugaku o chūshin to shite (On science – centring on paleontology) and later reissued without the subtitle. Readers were immediately struck with the distinctive individuality of the author and, at the same time, could find the cornerstone of his organization strategically placed in the treatise.

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PHILOSOPHY OF SCIENCE BASED ON GEOLOGY AS A PARADIGM

The major topics of the philosophy of science during the early half of the 20th century have focused mainly on new conceptions generated from problems in modern physical science, such as causality, complementarity, and a relativistic interpretation of space-time. Ijiri’s philosophy of science is, however, unique to the extent that it is heavily coloured by the real experiences of a mountaineer geologist, as distinctly contrasted to armchair contemplation. Here we can note a bold stand against the superiority of exact science and mathematico-physical reductionism which have dominated the scientific world in the early part of the 20th century. In his view of science, mathematics has no reserved seat at all. First encounter reality through personal experience, next describe it accurately, and then classify it; this procedure may be called Baconian, but what is more significant is the historicism explicitly proclaimed. Ijiri’s ultimate aim is to establish a unified methodology of science, taking geology as the model science and encompassing the biological, historical and social sciences. Exact science or physico-chemical reductionism is deliberately excluded from his scheme.

In the actual practice of science the present writer would not concede the excessive merit of ‘philosophical’ methodology. ‘Given an appropriate methodology, then every solution will follow logically’ – such a magic recipe with an almighty problem-solving power is hardly conceivable. In some quarters of Japan, especially among young scientists and students right after the Second World War, methodology has been considered all-important. This illusory expectation may be a reflection of an inferiority complex of Japanese scientists, too anxious to catch up with the forefront of world research and to fill overnight the gap between the West and war-devastated Japan.

Some scientists are fond of ornamentation. Just as practitioners in science and technology in premodern Japan decorated their prefaces with yin-yang doctrines that had nothing to do with the content of their works, the generation of scientists brought up in the early decades of the present century also seem to have a common affection towards philosophy. Ijiri may not be exceptional. Among the various natural sciences, geology’s prestige is low because of its low level of abstraction (measured by distance from tangible daily experience) and its lesser degree of mathematization. To those who suffer from the low prestige of their chosen subject of study, Ijiri’s work, providing geology with ‘philosophical’ profundity, appears to have been received as a long-awaited gospel.

Moreover, unlike conventional philosophy of science, which tries to conform to the established norms of science, Ijiri’s philosophy of science is so close to the daily experiences of practising scientists that it exercises a far more positive influence. Influence varies, of course, according to the age and background of the reader. If one is an already established geologist, he may take Ijiri’s philosophy rather matter-of-factly; it may arouse in him some sympathy but never influence his established course. If one is at the height of his productive research career, he may find some hints to appropriate in his own work. If one is a student or an immature novice researcher, he may receive it so dogmatically as to be in danger of falling into methodological inflexibility.

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