



## To act independently or to rely on external pressure

—Quality assurance for Ph.D.s—

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There are many cases where we are urged to change by external pressure such as externally imposed motivation and criticism, instead of our independently acting and changing in a positive manner. National universities started to be converted into independent administrative institutions (IAIs) in 2004 with the expectation of bringing about changes in universities, including civilian idea-based university management, university operations with consideration for their stakeholders, and their educational achievements and research accomplishments to be given back to society. Intrinsically, these reforms of national universities should have been carried out by the national universities themselves of their own accord, without the external pressure of conversion into IAIs.

How to ensure quality assurance for Japan's Ph.D.s has been discussed and reviewed for quite a long time. The Subdivision on Graduate Schools of the Central Council for Education has also declared quality assurance for Ph.D.s as a critical issue. Students aspiring for a doctoral course education go to graduate school and attend doctoral programs in order to acquire basic academic skills, master a high level of expertise and enhance their capabilities as researchers, i.e. the ability to raise questions and solve problems. Nevertheless, quality assurance for Ph.D.s cannot be ensured unless university faculty members fully recognize that doctoral students entered graduate school in order to study and that they have been paying their academic fees for that purpose. In other words, graduate students who are Ph.D. candidates need to cultivate their basic and specialized academic skills as the first priority. Their purpose of attending doctoral programs is not to assist with the research of their academic supervisors.

Why are Japanese postdoctorals not favorably recruited by companies and related parties? And why are Japanese Ph.D.s not so highly appreciated in Europe and the United States? Minimal qualifications required for postdoctorals are narrowed down to the following two kinds of abilities: basic and specialized academic skills; and ability to raise questions and solve problems. These qualifications must be substantiated in order to ensure the quali-

ty of Ph.D.s. To this end, two types of qualification examinations should be thoroughly conducted based on clear criteria. The two types are written examinations, which check basic and specialized academic skills, and oral examinations on research proposals, which check the ability to raise questions and solve problems. Japanese universities have not yet properly adjusted their qualification requirements for Ph.D.s in terms of quality assurance. To my knowledge, which is limited to Ph.D. screening for engineering-related doctoral students in their advanced course, Ph.D. candidates are required to submit their academic dissertation, contribute their articles to a reputable specialty journal, and pass their respective oral examinations in front of an academic panel in order to obtain the doctoral degree. In general, most doctoral research themes are given by academic supervisors. The degree of research advancement and development surely depends on the abilities of each doctoral student, but it may also depend on the level of difficulty of the research content. For this reason, the completion of each academic dissertation could be affected by good or bad luck rather than the actual abilities of the Ph.D. candidate. In general, Japanese universities do not much examine research proposals and the like, which would otherwise ascertain the qualifications of researchers.

As the title of this article indicates, we can't help but rely on external pressure if we are not able to act independently. So I would like to make a suggestion: How about institutionalizing the advanced-course doctoral degree screening and qualification requirements from the perspective of quality assurance for Ph.D.s in the same manner as the Ministry of Education, Culture, Sports, Science and Technology carried out the conversion of national universities from public education institutions into independent administrative institutions? For it is obvious that Japan as a nation is not capable of changing anything quickly without external pressure.

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