

Me and The Path I Need to Take to Become a Researcher

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Richard Hamming in his talk 'You and Your Research' underlined several points to achieve success as a scientist. He mentioned the importance in finding the significant problems, having ownership and emotional involvement in solving the problem, and finally not blaming luck but seeing it as an opportunity in the path to achieve greatness.

In his talk, Richard Hamming offered his advice on how to achieve success and greatness as a scientist. He emphasized on several points. First, the importance of choosing the significant problems. An unimportant problem will never lead to anything important. On the other hand, solving an important problem means having a solution that is both impactful for the community and the scientist himself.

I personally think that finding the important problems is always hard. Especially in this modern age where research moves so quickly, the world demands us to keep up with the most recent research works in the area and to find the gaps. I believe the way to find these gaps is by observing those research works closely and understanding deeply how they work through visualization or other ways in hope that we can find potential improvement areas.

Another point he touched upon is the need of being emotionally involved in one's work. Scientists should be passionate and committed to their work as this ties in to the quality of their research. An unmotivated scientist who doesn't have a sense of 'ownership' for his research will not be able to produce meaningful and impactful work. A motivated one, however, will have the desire to see their work succeed and have impact for the world. This desire encourages them to keep working and improving.

As graduate 'students' who have yet to become scientists, our motivation often lies in getting the best GPA or graduating as soon as possible. This perspective treats our research as just another homework or project we have to work on as a requirement for graduation, hindering our motivation. To solve this, we have to prioritize our research and motivate ourselves with the vision that our work can become impactful if we work on it wholeheartedly.

Hamming also discussed how people would often blame external factors, especially luck for not achieving greatness. He acknowledged that luck can play an important role in research, but relying on luck alone is not enough. Yes, it is true that being in the right place at the right time is luck, but he argued that without prepared mind, being lucky contributes to nothing.

Luck for me is just an opportunity, and to be able to take advantage of this opportunity when it arises is what matters. I already consider myself lucky to be able to do research with ease as I believe there are not many people that has the luxury to do so. So what is left for us is to have the prepared mind to do our research. For me, this is the path that I think I need to take to become a great researcher.