EDITORIAL

A Master's Degree—by Any Name

"Joe, how did you lose your finger in the buzz saw?"

"Well, I was pushing a board through just like this, and . . . Oops. There goes another one."

WE PREDICT that the new master of philosophy degree and various differently labeled versions of it will fade away like other master's degrees because they are not solutions to a problem but ways to avoid thinking about it. Surely it is an irony that while many organizations cry for persons with a mastery of physics, no one can properly define a master's degree.

Indeed the master's degree does have significance in some institutions (particularly non-PhD-granting ones) and some professional fields (education, library science, business, music), but variability and lack of uniformity limit its meaning elsewhere.

Can the difficulty lie in America's linear concept of education? Typically to assess an education one asks, "Did you complete your PhD?" "What grade are you in?" Seldom asked are whether you can speak French, recognize six-eight time or bound Yugoslavia. Americans seem to see education as one dimensional progress along a line. Everyone cares how long it is; no one seems to care how big it is around. A linear system has no appreciation of the scholar who does things more slowly but with more elegance or elaboration than the one at the next desk.

IS AMERICAN physics a victim of this one-dimensional view of education, and does it, consequently, fail to give purpose to the master's degree? Often it seems that the bachelor hasn't got his feet wet; the PhD has swum the river; whereas the master is halfway across and drifting with the current. Frequently his degree is a sop for the PhD candidate who didn't make it. Better never to have tried than to have tried and failed.

How different is the European situation in which the equivalent of an American master has prestige roughly equivalent to a wealthy merchant or salesman! He is not regarded as a dropout but as someone who chose to specialize differently from the man who went on to publish research papers.

SOCIETY finds appropriate places for its physics bachelors and doctors. The PhD is understood to have passed his boards and qualified as a specialist. The bachelor is a general practitioner, qualified for thousands of jobs that need his general viewpoint. Among the bachelors and doctors must be a spot for the man who has mastered physics as it stands right now although he has not pushed through its frontiers nor delved into its future problems. Should one not characterize the bachelor's education by completeness, the doctor's by depth and the master's by breadth?

THE ANSWER to the master problem, we think, is not a new label but a new purpose. Within the academic system the degree should be defined to suit the man who will get it, his peculiar talents and his role in society. When such a definition has been written and accepted the littler questions about proper requirements for it—hours, thesis, examinations—will probably have simple answers.

A redefined degree might command an appropriate amount of prestige. In place of the feeling that this is a man who set out along a line and didn't follow it all the way, might come the estimate that he chose to specialize in breadth rather than depth. While his PhD colleague went into mesons and resonances in solids, the master turned to relations between his subject and others—history, philosophy, education, government. His pursuits suit his talents. Proper prestige for the degree might encourage students to seek it and make themselves available for positions that need them.

Possibly the greatest improvement available from redefinition would be recognition that not all men fit the same mold or follow the same line to an understanding of physics—or anything else.

TO ACHIEVE a redefinition, a restatement of purpose, American education needs some answers acceptable to policy makers. What should a bachelor physics major know about physics and —more important—about other matters? When he becomes a candidate for graduate school, should one evaluate what he knows about physics or other subjects too? Should a master's degree be a necessary condition for pursuit of a PhD? . . . a sufficient one? At the master's level, how should the requirements for master's and doctor's degrees differ? How much variation among students should one allow or encourage?

What to do with the person who has graduate training but not a doctorate is a difficult problem that deserves a solution. We hope that those who are looking for one will not just change the label and lose another finger in the buzz saw.

—R. Hobart Ellis Jr.