5. PRIZES AWARDED TOO LATE?

Another recurring criticism, one that crepped up again last year with the award to 87-year-old Peyton Rous, is that some persons receive the honor too late (SR, Dec '66, 37). Here it should be made clear that Nobel's original stipulation that the prize go to those who made their discovery "during the preceding year" was modified in the statutes drawn up before the awards began to be made. This provision states that Nobel's words are, in effect, to be interpreted to allow inclusion of works whose significance has only recently become apparent.

Thus the rather extreme case of Rous' recognition 55 years after his discovery can be defended quite adequately. "Even as late as 1959," says Friberg, "some scientists were vehemently refuting the contention that viruses could give rise to cancer." It is only in "recent" years that the significance of Rous' discovery has become generally accepted. Another Karolinska professor says that had the institute given Rous the prize in 1957 "the world would have said we were

crazy."

Tiselius fails to see any trend toward increasingly late recognition, although he does admit that the average age of last year's awardees was rather high. It is true, he says, that the prize has very seldom been given to a young man. Alfred Nobel's original desire to reward a young and promising scientist and enable him to continue his research with financial independence is now an outdated philosophy. No longer need a brilliant young scientist fear for his personal or professional livelihood. What with government grants and universities clamoring for top research talent, the problem that confronted the scientist of yesteryear no longer exists.

Another reason recognition tends to come as late, at least, as middle age is simply that it takes longer nowadays to produce. Education takes longer and there is an ever-expanding body of knowledge to be absorbed before new paths can be explored and conquered. Furthermore, Tiselius insists, there are discoveries "whose full significance nobody—not just the Nobel committees and institutions—can realize until some 20 or 30 years later, and then it may be too late."

6. MISTAKES?

Have the prize-awarding bodies made mistakes? Of course, they have. Gustafsson, for one, is amazed that they have not made more. And this may be the remarkable factor behind the success of the Nobel Prize as an institution.

Most would agree that the choice of Fibiger for the 1926 medicine prize was regrettable: his "discovery" turned out to be wrong. "I think it is safe to say," Theorell declares, "that we don't feel any serious mistakes have been made. Perhaps in a few cases we agree that a better choice could have been made." Eric Rudberg, chairman of the See Wobel

ULF VON EULER, chairman, board of directors, Nobel Foundation; ex-secretary, Nobel medicine committee

ERIC RUDBERG, member, board of directors, Nobel Foundation; chairman, Nobel physics committee

physics committee, member of the Nobel Foundation's board of directors and permanent secretary of the Academy of Sciences, thinks there have been some afterthoughts, but not very strong ones.

Certainly some of the professors who bear the burden of selection responsibility resent a lack of imagination on the part of some critics in not being able to appreciate the difficulty of weighing achievements in fields that are not at all comparable but which must compete for the same prize. How does one compare accomplishments in thoracic surgery, for instance, with those in molecular biology?

Tiselius feels that some mistakes are unavoidable. He cites the case of O. T. Avery, who discovered that DNA was the carrier of heredity, and whose failure to receive the prize many have considered a glaring oversight. "That Avery never received the prize is lamentable." Tiselius admits, "and had he not died when he did I think he would almost certainly have gotten it. However, he was an old man when he made his discovery. Most people believed he was right, but there was still some doubt. By the time his achievement was confirmed, he had died. This is one case I regret very much."

Some observers—perhaps especially laymen—wonder why such relatively well-known scientists as developers of the various polio vaccines, vitamins and new antibiotics have not received Nobel prizes. In fact, some vitamin and antibiotic discoveries have been honored, but if every such discovery were to qualify automatically for a prize, there would not be enough prizes to go around and none left over to honor other achievements in medicine. It is significant to note, too, that three American investigators received the medicine prize in 1954 "for their discovery of the ability of poliomyelitis viruses to grow in cultures of various types of tissue," a discovery that paved the way for development of polio vaccine.

Suppose someone in top contention for a prize happens to be a member of a prize-awarding body or of its Nobel committee? This was the case with Tiselius in 1948 (Theorell was not a full faculty member at Karolinska when he received his prize in 1955). If one is nominated oneself, explains Tiselius, one either withdraws from further com-

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