



## THE VALUE OF AWARDS



Do prizes, awards, and similar forms of public recognition help to improve the quality or quantity of scientific research, and, if so, do they do it effectively? If this kind of recognition is really useful and effective, should we not have many more awards for a larger variety of accomplishments, or would this kind of proliferation dilute the value of any particular award and thereby nullify one of the purposes of the award?

To sample responsible informed opinion on awards in general, we put these questions to the first 40 recipients of the Ernest Orlando Lawrence Awards, for if awards do serve in a real way to improve science, perhaps a recognition of the extent of their effectiveness would form the basis for improving science still further.

Of the 40 Lawrence Award winners, four could not be located, 21 did not reply, one said "no comment," and 14 took the time to write some very interesting letters.<sup>a</sup> Numerically, the results are probably two or three orders of magnitude smaller than what would be needed to establish a consensus. Actually, we would consider this "survey" eminently successful if it were to lead to a comprehensive study of the problem (by someone with more time than we have). Nevertheless, the present 14 replies are illuminating and worthy of serious consideration, in view of the stature of the recipients and the obvious amount of thought involved in their answers.

To the question "Does the existence of an award inspire scientists *before* they receive it and, in so doing, improve science?" seven said *yes*, one said *no*, and one said *no* regarding any one specific award but *yes* concerning rewards in general. Reasons given included: Awards provide tangible recognition that pursuit of technical excellence is considered important, and they improve the morale not only of the recipient but of his co-workers. Three winners felt that the namesake memorialized by the award, rather than the award *per se*, was inspiration for future generations. One felt that the necessary daily criticism from colleagues, editors, and reviewers, while sharpening the cutting edge of a man's intellect, can also abrade his self-confidence, that awards tend to compensate for this, that such praise is especially valuable from those capable of understanding his work, and that this particularly applies to younger scientists for whom the Lawrence Award is especially appropriate.

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The question "Is a scientist's work improved by the stimulus of receipt of an award?" brought three *yes*'s, two *no*'s, and three *possibly*'s. One felt obliged to work a little harder to make up for suspected exaggerations on the part of friends who must have written letters of recommendation about him, another suggested that a prize should be financially large because mere words and a scroll are highly suspect as the establishment's way of extracting more work from the peons, and a third felt that the usefulness of awards could be vastly improved by giving a man free rein and a commitment to support his research rather than a personal prize.

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However, a fourth, obviously thinking of bigger stakes, felt that prizes already make it easier for winners to devote their efforts to long-range endeavors with uncertain but potentially large payoffs and opined that "a Nobel prize winner can probably do whatever he wants for the rest of his life."

To the question "Would proliferation reduce the value of awards?", there were four emphatic *yes*'s and two equally emphatic *no*'s. The first group felt that the value was inversely proportional to the number and that early awards of an established prize are more significant than later ones; one felt that awards should be rare and cited the Mauldin cartoon caption, "Give me an aspirin; I already have a purple heart"; none were in favor of reducing the present number. Those replying *no* felt that the number of deserving scientists is certainly rising faster than the number of awards, that this increasing imbalance inevitably leads to inequities, that there is plenty of room for new awards in new specialties, and that the value will depend more on the prestige of the awarding body, the method of selection, and the eminence of previous recipients.

Four people volunteered comments on the problem of impartiality and objectivity in selecting a recipient: As long as prizes are clearly based upon truly meritorious achievement (not service) and are certified by objective impartial panels they cannot fail to stimulate scientists. However, the selection process is extremely difficult and subject to both conscious and subconscious political and personal inclinations of committee members to the point where winning must be recognized as involving a large element of chance in addition to talent and capability. Nothing hurts the whole system more than an award granted to someone regarded by his peers as undeserving. One recipient referred to awards as "Apples of Discord."

The following is an attempted distillation and condensation of explanations offered in support of the various views held:

The Lawrence Award is particularly valuable in serving certain areas not stimulated by other awards. One such area is that of classified work, in which, because of national security, the usual forms of public recognition do not exist. Another area is the nebulous but broad interface between science and engineering which tends to be overlooked or even made unpopular by the snobbish attitude of the purists on either side of the interface. The granting of awards such as the Lawrence Award is a policy that should be extended by the AEC to increase the level of effort in important but "unpalatable" fields; for example, more could be accomplished in the area of neutron cross-section measurements by a specific annual award for accomplishment in this area than could be achieved by the much greater expense of building a new electrostatic accelerator.

People who continue in research rarely attain positions of control and leadership, the success standards used by most of society. However, the Lawrence Award recognizes excellence in technical achievement as significant and praiseworthy; this is a type of activity that does not lead to increased power and financial reward. Such a system constitutes within the research community a social structure having prestige values. Thus, although winning an award does not directly increase one's power or responsibility, a Nobel prize winner has even more stature in the scientific community than a member of the board of directors has in a corporation because of the general feeling that a properly deserved award results from the pursuit of technical excellence rather than of the award itself.

A side benefit of an award system is that prizes identify to the public policy-makers scientists of proven competence to whom they can turn for advice on scientific matters with some confidence that the advice given represents the best available. Recognition of younger scientists helps make their influence felt in policy matters sooner than might otherwise be possible.

Finally, all would apparently agree that what is valuable is "a mechanism for allowing the worker to be recognized in the mass of human endeavor which is so prevalent in today's team or group effort . . . (and for helping) him to be an individual and escape from the crowd."

*Louis G. Stang, Jr.*