

# Science, Christianity, and the Meaning of Success

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There are some qualities for which it is both meaningful and simple to assign a numerical measure. This includes qualities like length, weight, and roughness. Often, there are objective ways of measuring such qualities, and these can be applied to all such objects. All sticks, for example, have an objective length which is not up for debate. By lining things up in order of increasing quality of interest, one can produce a ranking. It is thus possible to identify what is longest, heaviest, or roughest. Such numerical, objective, totalising metrics have the appearance of being highly scientific.

“Success” is often considered in relative terms: top of the class, most-cited paper, beating the market. Such comparisons require a method of ranking things: lining them up in increasing order of some quality, and seeing how far along the line a particular thing comes. A thing is considered to get “better” as it moves up the ranking. The value of “best” (and therefore most successful) is assigned to the thing at the top. In science, of all subjects, a metric which is numerical, objective, and totalising might seem most appropriate. What could be wrong with something so seemingly scientific, fair, and universal?

The dominant method in academic science for such a ranking of researchers is the “*h* index”. Other fields have their own metrics of success such as the number of books sold (authors), the size of your bonus (bankers), or the size of your congregation (pastors). In each case, the use of a numerical ranking for establishing who is best (and thus who is most successful) has difficulties. One solution to such difficulties is to take the index as the *definition* of best: physicists really are better scientists than sociologists exactly *because* they have higher *h* indices. Another solution is to add correction factors to the index, so it better accords with our intuition: this person is a good scientist because they have a high *h* index *for a sociologist*. A third solution is to abandon ranking all together, and propose an entirely different conception of success. It is this third solution that I now consider and defend.

Science requires numerous different skills. It requires people of vision, who are not bogged down with petty details. It requires people of detail, who pick away at the smallest anomaly. It requires pioneers who will try new things. It requires stalwarts who will ensure that novel results can be repeated. No one person has all of these characteristics, and the scientific endeavour would fail if any one of these types was missing. It is not meaningful to ask if a visionary who thought of a new experiment is (for that reason) a “better scientist” than a pioneer who performed the new experiment. Their respective skills are necessary and incommensurate. Given their contributions are incommensurate, it would be surprising to find a universally applicable measure of success. A person’s *h* index may be objective, numerical, and universally applicable, but so is their shoe size; that does not mean it is relevant to what we are attempting to do.

The Church is in a similar situation to research science. It requires people with numerous different giftings. It is given, for example, apostles, prophets, evangelists, pastors and teachers. No one person can fill all of these roles, and yet the Church would fail if any one of them were missing. It is not meaningful to ask if the evangelist who introduces a person to Christ is (for that reason) a better Christian than the teacher who establishes them in Christ. The biblical response to this situation is to view success as necessarily diverse, non-relative, and non-reductive.

With respect to diversity, Christianity insists that the parts of the Church (the body) should *not* be the same: “If the whole body were an eye, where would the sense of hearing be? ...And if they were all one member, where would the body be?” (1 Cor. 12:17-19) An ear will never be – and can never be – a successful eye. To the extent that an ear is “successful” by any metric that might be used to judge an eye, it is a failure as an ear.

With respect to being non-relative, the standard on judgement day is the absolute, “I was hungry and you gave Me food.” (Mat. 25:35) It is not the relative, “I was hungry and you gave Me more food than anyone else did.” The standard is never “Am I better than others?” but rather “Am I like Christ?”

With respect to being non-reductive, the bible subverts the idea that individual success can always be meaningfully judged in terms of individuals. “If one member suffers, all the members suffer with it; or if one member is honoured, all the members rejoice with it.” (1 Cor. 12:26). It is the Church as a whole that will be presented without spot or blemish (Eph. 5:27); it is not sufficient for the hands to say, “But we are clean!”

It has thus been shown that scientists and Christians have similar predicaments regarding the failure of numerical, objective, totalising rankings as a way to measure success. It has also been shown that the bible avoids such difficulties by rejecting rankings in favour of a view of success which is diverse, non-relative and non-reductive. Such a solution holds not only for the Church, but may be of benefit to developing a better conception success for academic scientific research.

With respect to success being diverse, it must be recognised that a successful technician will always produce different outputs from a successful head of department. One cannot and should not be judged by the standards of the other.

With respect to being non-relative, a scientist should be measured on their own merits rather than against the merits of others. It is more important that they supervised their students well, than that they supervised their students better than the colleague next-door. This, in fact, cuts both ways. In a generally good department, not being the best may still be good enough. In a generally bad department, merely being the best may still not be good enough.

Finally, with respect to being non-reductive, the work of a single scientist cannot be judged in isolation. The success of the launch controller at Kennedy Space Center was measured by Neil Armstrong setting his foot on the moon. Rankings will always be a zero-sum game. Success in science, by its collaborative nature, can never be zero sum.

The difficulties of rankings as a measure of success are rather general; they are problematic well beyond academic research science. The conception of success derived here from biblical principles is also rather general. It has been applied here in the context of science, but could find application in areas as diverse as business, industry, and education.