A summary of leadership

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ABSTRACT: There is a conventional wisdom that management and leadership go hand in hand, that every manager is *ipso facto* (or at least should be) a good leader, thus leadership in management has been taken up as a cause to be promoted, and leadership as a word has become a mantra chanted by all and sundry, with many voices proclaiming many different theories, many spoken as facts, particularly by those who are disciples of this management-leadership cause. Examples of the output of those disciples may be found in any of the texts on management, in texts specialising in management for engineers, and, as one might expect, in texts dedicated solely to the leadership cause. Several fallacies and paradoxes in the literature will be examined and an unusual literature source will be used to provide illustrations of leadership types. The leadership concept will be related to engineers' positions, and some possibly-controversial conclusions will be presented.

INTRODUCTION

As with most human endeavours, there is much to be said in favour of the reasoning behind the leadership concept as it is being presented, but what is sad about it is no-one, it appears, has been game enough to stand up visibly (or speak audibly) and point out that most of what's in the literature contains both fallacy and paradox. In defying what appears to be the established doctrine the author of this article may be treading on dangerous ground.

But others have done so in the past, such as Luther challenging Rome on religious grounds, Galileo maintaining what he could see was true, and, in politics, the citizens of Boston having a tea party as a protest against the English who governed them. And so we propose to play *Devil's Advocate* by arguing against this established leadership-management doctrine, to review some of the pro and con literature, then use both to examine the fallacies and paradoxes, and to demonstrate that the manner in which leadership is presented fails to provide a satisfying explanation of what it is and how it works.

What are the implications for engineers? And for the future of the profession? And for engineering education? These are questions worth putting to engineers about their profession, indeed, there is a section of the Institution of Engineers, Australia (IEAust), which promotes leadership, in conjunction with management, and shows almost a reverential attitude to the topic in engineering. Suggesting answers to such vital questions, after discussion of the main theme, will be part of the present article.

What is a (or the) *Devil's Advocate*? It is the title given to the person appointed to prepare the case against someone proposed to be given the honorific *Saint*, and that advocate-person has the task of making objections and pointing out defects in the character of the one to be canonised, as if working for *Satan*, opposing the Angels' case. So, this author is presenting arguments against the leadership angels by showing much said about leadership is fallacious and paradoxical. Much of what is written may still apply, one way or another, but a *spoonful of salt* needs to be added.

As a beginning, here is a brief review of this author's writings on the leadership topic. It was first covered in the author's text on management, in a quite straightforward manner, simply presenting it as an important feature of successful management, particularly the management of, and by, engineers [1]. That was followed by four papers which have been condensed to form this present one; the first was on leaders and followers [2], the second [3], looked at fallacious and paradoxical aspects of the topic, showing general acceptance may not be quite right and there can be

other points worth considering, the third covered a further fallacy and paradox [4], and finally the most recent coverage of leadership presented earlier this year illustrates features of leadership by referring to W.S. Gilbert's operas [5].

WHAT DO THE LEADERSHIP EXPERTS SAY?

Reference to a few leadership gurus is now needed to indicate their writings have been consulted, and the ones selected here are generally from well back in time, selected because they express generally-accepted thoughts on this topic. However, if one were to cite no more than all the available references in this author's library on this topic the list would take up too many pages, there would be little space left for the actual article. Therefore, only a small selection from this modestly extensive collection will be quoted and cited, using those as examples of what can be found.

There is something fitting, after the above introductory remarks, in quoting from Townsend (not a *leadership expert*, but a generalist and the arch-heretic of management thought), whose comments on our present topic begin with: *True Leadership must be for the benefit of the followers, not the enrichment of the leaders* [6].

Curiously, he had relatively little to say about leadership under that heading, some more under the heading *People*, but in an appendix he gave what he saw as the essential qualities: a good leader should be available, inclusive, humorous, fair, decisive, humble, objective, tough, effective, and patient, as a checklist by which the reader could assess his or her boss - as a leader, not necessarily as a manager. There is no indication how those qualities might be attained, the implication is a good leader just has them - but as the checklist gives a 1-to-10 ranking for each quality we infer not all leaders are equally good; some can be more equal than others.

Another writer, Byrt, of about the same period [7] presented the social scientist view that there are two principal theories of leadership: the *great man* theory (the *trait theory*, that leaders are born great and take leadership because their nature needs it) and the *cultural determinism* theory (that circumstances arise in which a leader is needed and one appears, achieving greatness), with the added note that many social scientists take a position between the two theories (perhaps suggesting some have leadership-greatness thrust upon them).

In a search for distinct leadership qualities or traits, such as offered by Townsend, Byrt quotes Brown [8]:

> *When we consider such men as Hitler, Napoleon, the Wesleys, John Knox, and Oliver Cromwell, or such women as Mary Baker Eddy, Queen Elizabeth and Mrs Pankhurst, it becomes absurd to say that a leader should be well-balanced, possess a sense of humour, or a sense of Justice. Some of the most successful leaders in history have been neurotic, insane, epileptic, humourless, narrow-minded, unjust and authoritarian.*

More could be added to that list of historical personalities, which seems to argue against Townsend's checklist.

A decade or so after Townsend and Byrt, Macoby gave a different view of leadership by looking at some cultural factors then analysing six people in leadership roles [9]. In his opening chapter he provided a significant sentence which suggests he was inclined to the *cultural determinism* theory:

> *Leaders succeed only when they embody and express, for better or worse, values rooted in the social character of group, class, or nation.*

A slightly earlier work by Zaleznik began with a point Townsend made, that *the crux of leadership is the acceptance of responsibility* [10]. He presented an aspect of leaders and their efforts different from the above, that leaders are egotists and experience tensions and conflict from their *grasping for and acting upon the sense of responsibility*. Those tensions and conflicts lead to either anxiety caused by status achieved or anxiety caused by competition with others at similar levels, all part of working in an organisation which places dilemma-causing burdens on those who become leaders, burdens additional to those directly caused by the individual's position. The dilemma to which Zaleznik referred was, essentially, the need to find resolution between the leader's need to lead and the burden of being a leader.

Further into the 1980s we find a very readable work by Bothwell [11]. In the chapter titled *Who: The Leader*, there is reference to the *trait* theory (which Byrt termed *the great man theory*) with its several hundred mutually exclusive traits, which cannot be applied uniformly to actual leaders. Bothwell appears to have included no mention of the alternative *cultural determinism* theory. The two leadership qualities given by Bothwell were: having a vision and acting to bring it about. Those were followed by ten basic principles: true communication, integrity, composure and steadiness, self-control and action, sense of humour, uncommon sense and wisdom, empathy, a win-win approach to decision-making, humility, and selfless love. There is also reference to a leader needing and having power (charisma is mentioned as a form of power) to move from vision to action.

Moving on to even more modern times Zand reduced leadership to only three variables or forces: knowledge, trust and power [12]. The first is knowledge: effective leaders know, or can find out, what should be done, they are not

omniscient but know how to get information and how to work with people to convert knowledge into action. Following from that we may reflect on one of the points made about Kerry Packer: he has been quoted as saying *he didn't read much, but he talked to a lot of people who did* (source not recorded). The second force is trust: effective leaders earn trust, are trusted by their followers, by being fair, by sharing information. In turn, effective leaders trust their followers to act as agreed. The third force, power, is used appropriately by effective leaders, varying its use between direction delegation, consultation, guiding, and, of course, commanding.

Krause took a rather different path by using far-eastern philosophy, beginning with a definition:

> *Leadership can be defined as the will to control events, the understanding to chart a course, and the power to get a job done, cooperatively using the skills and abilities of other people. The goals and requirements of strong, effective leadership are the same now as they were 2,500 years ago at the time of Sun Tzu and Confucius* [13].

Following from that there is seven factors, which form the essences of leadership: self-discipline, purpose, accomplishment, responsibility, knowledge, *laddership*, and example. Krause coined the term *laddership* to provide a clear visual image of how a leader must understand the social and moral contract between leader and followers, using climbing a ladder to reach the goal as an analogy for leader and followers working together.

After all, the references from USA-writers it is interesting to come across one from England; Adair, who began in his book by reviewing the *trait* concept of leadership [14]. He stated that although this was rejected by academics, he conceded leaders do have to possess the qualities expected or required in their working groups, and that leadership implies *personality*, with enthusiasm and warmth, and *character*, incorporating moral courage and integrity, is also important (those points could be argued as favouring the trait theory). His term *functional leadership* combined task needs, group maintenance needs, and individual needs, combining what has to be done, the organisation which will do it, and the people forming the organisation.

All in all, a very mystical treatment, with an overall aim of showing how leadership can be learned and transmitted, yet, we submit, not to be understood as a functioning system. That aim is contrary to what is suggested in the first paragraph on the back cover of Adair's book: *The art of good leadership is highly prized and demands a keen ability to appraise, understand and inspire both colleagues and subordinates* [14]. His use of the word *art*, as distinct from *science* suggests leadership is an inherent skill, not something to be learned.

Newman stated ten qualities a leader has, and the first given is vision, moving then through discipline, wisdom, courage, humility, decision maker, develops friendships, tact and diplomacy, executive ability, and inspirational power [15]. It is interesting to compare this list with those of Townsend and Byrt, above, and as Newman is Australian to question whether his list was intended to cover any of our national political leaders.

Finally, questioning whether a leadership technique may have been ethical, we turn to Ciulla whose work is a profound study of the relationship between ethics and leadership [15]. After reading that writer's work one is understanding of that connection is certainly expanded, but there is so much argument back and forth it is hard to see whether leaders should behave ethically or should respond more to demands of altruism.

Only writers in the personal library have been cited in the above, and hence some prominences are not mentioned. A useful summary appears in Donnelly et al [16], which describes the Tannenbaum-Schmidt *Continuum of Leadership Behaviour*, Likert's *job-centred versus employee-centred* leaders, the Ohio State University *two-dimensional theory*, Blake and Mouton's *Leadership Grid*, Fiedler's *dynamic situational or contingency* theory, the *path-goal* theory, and the Vroom and Yetton *situational-leadership* theory, a list showing how much has been written.

THE PERSPECTIVE OF HISTORY

History has given us events, which appear to distinguish between the forming of a group under a leader and the arrival of circumstances requiring a leader. There have been several writers, ones who have used historic events to define and explain leadership; using events and their characters to illustrate the above question, Only brief summaries follow here.

Luecke examines eight such events, beginning with Cortez landing in Mexico and ordering their ships should be destroyed before he advanced on the Aztecs [17]. At least two writers have reviewed Elizabeth I as a leader; Axelrod [18], who concentrated on lessons in strategy, and the duo Higgins and Gilberd [19], who give more attention to the leadership the queen displayed in exercising those strategies. Nelson's leadership has been analysed by Jones and Gosling [20], with comments by Mintzberg and others. The history of Napoleon is presented by Duggan [21]; though its title shows it is about Napoleon's using the art and science of strategy that is in only the first chapter, the remaining nine chapters, each on another important historic leader, analyse how and why each became prominent, including Pablo Picasso (a leader in art) and Ella Baker, of the USA civil rights movement. The Civil War period in USA-history provided Wheeler with the background for analysing leadership in a more modern period [22].

A very broad historical coverage came from Wills with examination of sixteen prominent leaders, each compared with an antitype, for example, Eleanor Roosevelt versus Nancy Reagan [23]. He defined a leader as - one who mobilises others toward a goal shared by leader and followers. Leaders, followers, and goal make up the three equally necessary supports for leadership.

Interesting, although in that he has given *equality* to the three supports, he has begun it with *mobilises others*, indicating a leader achieves results via the actions and efforts of the followers, a point on which we will be reflecting later.

AND NOW TO THE MANAGEMENT WRITERS

All (well, nearly all seen by this author) management books have a section or chapter on leadership, and again, the number of these is so large only a few can be cited as examples. The first impression one gains is that these writers, like the leadership specialists above, have concentrated on *management leadership*, which appears to be supported by their discussion of *the task-centred leader* and *the people-centred leader*.

Why do management writers include leadership? The answer is simple: leadership was recognised as related to motivation, and both were entrenched into the management functions (planning, organising, leading-motivating, and controlling) by Fayol way back at the beginning of last century, so everyone since has carried the topic forward into every management book [24].

Many management books could be cited and from which extracts could be quoted, so as a final word we should take what the grand master had to say in his early writing [25]:

> *There is no substitute for leadership. But management cannot create leaders. It can only create conditions under which potential leadership qualities become effective; or it can stifle potential leadership.*

ENGINEERING MANAGEMENT WRITERS

These are a relatively *rara avis*, there are nowhere near as many of these as those covering management in general. Curiously, a fairly recent Australian book of merely a decade-and-a-half back omits the topic in both the contents and the index, without even a fleeting mention on the three pages on motivation [26]. Another fairly recent Australian book, of about the same time [27], gives leadership some pages, and a book by an eminent American [28] covers similar ground including a section on motivating and leading technical professionals. This present author's book [1] contains all in these two references plus a specific section on leadership in an engineering organisation.

THE FALLACIES

So where are the fallacies? By the way, what is a fallacy? It is a misleading argument, a delusion or error, an unsound method of reasoning. Incidentally, not all the gurus agree on one point or another, there are items where there is disagreement. We can start with the one in which so many of the experts disagree with each other, which is the trait-versus-education, or trait-versus-circumstances, argument, some have claimed the ability to lead is born into the individual, others state that it can be acquired by some learning process, perhaps formal, perhaps informal (so they did not need to be born with it). Both cannot be true, if taken implicitly, and neither can be proved, so we are given whichever the particular guru prefers.

However, the truth could be a combination of the two; perhaps many are born with the mysterious leadership trait and a few happen into situations which develop that quality into whatever works to make them leaders. Thus, only those few progress into leadership roles.

Then, associated with that, there is the question whether the (born or educated) leader brings together a group of people in a situation he (or she) can lead, or whether a state of circumstances arises which demands a leader appear, so he does (please note, having acknowledged once the feminine further pronouns will rely on the remark attributed to Disraeli, that the male embraces the female). The related question is whether the leader (when he has appeared) takes over and drags the followers into what he believes is way of tackling what has to be done or whether the leader must conform to what the led believe is the correct path, based on their values, group norms, etc. History has elements of both. One may tend towards concluding that the leader takes over and drags, as a first step, then takes note of what those others want and uses that (but, one would expect, with appropriate modifications).

None of those separate propositions make sense - taken individually. The result is a collection of unproved and unprovable ideas which confuse anyone trying to make sense out of the topic, and which can be misleading to a student, and worse to a manager trying to use the information in his work. The truth may be a consensus built from all of them, a consensus rarely seen or even hinted. How can we apply such a consensus? As a suggestion, the leadership style can be varied to suit the occasion, or the person addressed, but would that be ethical?

In what is written about leadership there is an assumption, sometimes explicit, sometimes left to be understood and accepted, sometimes not even hinted because it is part of accepted doctrine, that a leader has followers (in the earlier, unpublished paper, the term *led* was used for those). For example, Wills, cited above, stated a leader *mobilises others*, clearly implying a leader has followers. It is, of course, a reasonable assumption, our language suggests that one may expect a *leader* to have a *follower* (or the plural) attached, somehow or other. But why should that be so? Looking at history and modern times, yes, it does look that way, but one may ask: is the presence of followers necessary to define a person as a leader? And does someone we might (for some reason) term a leader automatically acquire followers? There is an alternative application of the title *leader*; it is a person who takes up something individually, perhaps a new line of thought, a physical technological invention, or a specific stand-alone function, perhaps in defiance of established practice or dogma. History has shown such people, and in many cases followers have rallied after the person has acted.

We are suggesting, here, that this usual assumption, that followers automatically exist after someone takes a leadership position, is a fallacy, because it does not always follow. Perhaps in many, even most, cases, but not always.

An actual example of a leader without followers is available from today's real world. In one of Sydney's universities there is a researcher investigating a mental illness. He has been doing that work for several decades and is established as a high-level knowledge-source on the topic. He has general office, administrative, assistance, and, from time to time, work-related assistance from colleagues, post-graduate student-assistants, visitors from overseas. He is in regular contact with other investigators around Australia and in other countries, all of whom collaborate extensively. He is, definitely, *out-in-front*, a leader in this field of human health. But has he followers? No. He has associates, colleagues, fellow-travelers on the path, the parallel investigators are similar leaders in the work, independent from him, as he is from them. The students come in, do research, are supervised, publish a thesis, and disappear, they might be classed as short-term aides, certainly not *followers*. This is a known present-day example of a leader without followers, and (however statistically inadequate a sample of one may be) this one example is sufficient to demonstrate the proposition that one can be a leader with no followers.

Overall, the biggest fallacy in leadership presentation is the persistence in pushing one theory or another, when the case for every theory so far has been given the flick. Perhaps it is time for a new, all-encompassing, theory?

THE PARADOXES

Now, where is the paradox in leadership? By the way, what is a paradox? It is a statement contradictory to received and/or accepted opinion; a concept conflicting with preconceived notions of what is reasonable or possible; something apparently absurd or incredible yet may be true in fact; a tenet contrary to received opinions.

The first paradox was, actually, stated by Drucker, who pointed out that managers are collectively the leadership groups of the society of organisations, but individually a manager is just another fellow-employee [29]. By citing some examples Drucker then concluded it is inappropriate to speak of managers as leaders. They are *members of the leadership group*. The paradox related to that is that those at the top rarely *lead* the troops, and that military analogy is very apt, used for convenience, but not necessarily only for military reasoning. Generals are not usually out in the front line, *leading* per se. There have been exceptions, Wheeler's analysis of the Civil War mentions many senior officers who did front line duty, but the real *leaders* are the sergeants, NCOs generally [22]. The same applies in industry and commerce; those at the top hardly ever take a part which actually *leads* the workforce. The true leader in an operating engineering department (in a project, or maintenance) is not the engineering manager, but the foreman, who actually directs the work being performed, hence he (or she) acts in the same manner as a sergeant in the military.

Another paradox, confirmed by historical examples, is that the person who adopts a leadership role is not always, necessarily, accepted. Churchill was definitely *persona non grata* in the 1930s when he tried to get England to rearm, but by the end of that decade he was surrounded by circumstances which led to his acceptance. (A case arguing for the *circumstances* theory?) Churchill's time ran out after his wartime need ended and he was rejected in an election.

A personal reminiscence illustrates another angle of the *acceptance paradox*: in one factory in which this author worked, there was a senior foreman, who had, over a period of many months, drifted into being accepted as filling the position of production superintendent in a *de facto* manner. He deserved the recognition, because he knew how the machines operated and how to get quantity and quality of the product reliably, and the shift foremen and machine operators regarded him as the expert, better than any of them. But he was not finally given the position because the senior level of the firm decreed that positions above foreman, that is, production superintendent, and above, had to be filled by people with university qualifications. As further confirmation of the leadership paradox, the shift foremen continued to regard the senior foreman as *their leader*, consulting him when problems came up.

The many personal qualities, stated as desirable by many writers, conflict with each other, no-one could be *as good* as suggested, and against that some writers have shown, from history, that some leaders have undesirable qualities. The *good* and *bad* qualities present a personality paradox.

The ultimate paradox of leadership is that despite all the theories produced re leadership, indeed, because we have such a proliferation of theories, no-one really understands what it is all about, what makes a leader, how a leader can take over and be accepted, indeed, why we have leaders. Although we do not understand the phenomenon it works, and all we have is the historical perspective of many men and women who have seen the need to act in ways demanded by the times in which they have lived and have accepted whatever they have seen as their task.

ILLUSTRATIONS OF SOME LEADERSHIP FORMS

Now, looking for another source of information to illustrate leadership, we choose the output of W.S. Gilbert to illustrate aspects of leadership. His work is worth exploring for aspects, illustrations, of leadership. He will be introduced by a quotation from Mary Parker Follett (1868-1933), an eminent writer of early last Century, indeed, a contemporary of Gilbert in the sense their years overlapped [30]. She included leadership in her management output, and in this context one sentence, which we will use as headings in what now follows, stands out:

> *…we have three kinds of leadership: the leadership of position, the leadership of personality, and the leadership of function.*

LEADERSHIP OF POSITION

Two characters in The Mikado (set in Japan but a satire on aspects of English life in the 1880s) show leadership of position. The most prominent one is the Mikado himself, the Emperor of Japan. An emperor definitely has position, whether obtained by hereditary or elective means and, therefore, has the ability and capacity to act as a leader. The other character with leadership-position-power is Pooh-Bah, who presents an interesting example of one in a self-appointed position and a person who has a high opinion of himself and his position.

In *The Pirates of Penzance*, we meet a gang of pirates, with an unnamed character titled *The Pirate King*, not captain or another nautical rank, but *King*, even though the pirates are shown to operate from a ship, visible in the scenery at the rear, in Act One of the play.

Finally, it is most important that a leader should not only lead but be seen to lead. The classic example of a leader who met neither of these criteria was Gilbert's character the *Duke of Plaza-Toro*, in the opera *The Gondoliers*, who preferred to lead his troops from behind them, except when retreating, and then he was definitely leading them.

LEADERSHIP OF PERSONALITY

In the search for a character to fit the above title we cannot go past Major-General Stanley, a leader in *The Pirates of Penzance*, not only as a member of the opera's cast and as a military officer but also as an expert on a wide range of history, mathematics and classical literature. In the same opera we find Frederic, also a leader via personality, in seeking to right the wrongs perpetrated by a pirate band by bringing justice upon them.

LEADERSHIP OF FUNCTION

For this we return to *The Mikado* and select from the cast Ko-ko, the Lord High Executioner (the only civic office not taken by Pooh-Bah, who was Lord High Everything Else). Ko-ko's function, of course, is to execute all those condemned to death by the authoritative powers of the town of Titipu, so he is an example of the stand-alone leader, one who has no followers but who is the *top gun* (or, more correctly to suit his work, the *top axe*) in the executive (an irresistible pun) department of the town's government. An earlier opera, *H.M.S. Pinafore* also provides examples of functional leadership through several ranks. The general picture Gilbert painted was that the man at the low rank was competent, the middle rank's abilities were doubtful, and the one at the top held an undeserved position (and was generally incompetent).

LESSONS ON LEADERSHIP

The lessons from reading Gilbert's plays, or seeing them performed, gave nothing new at the time they were presented, what they displayed was part of human nature going back thousands of years (at least) and, equally, nothing today. However, it is worth reviewing what is in them, and to do that we will track back through Follett's three types of leadership; position, personality and function.

Position is almost an automatic means of becoming a leader, position can provide power, with which the leader can produce results. Power may be official (the Mikado, an emperor) or delegated (Poo-Bah, a bureaucrat).

Personality can provide backing for a leader, particularly if the leader has the extreme form of personality we term charisma, taken up for general use to explain why and how some people seem to be set apart from the mob by those

around experiencing a near-divine attraction to the leader.

Function sets people apart by some performing activities which distinguish them from others. Police, judges, magistrates, barristers and solicitors perform justice functions, doctors and others function in the medical profession.

The most fortunate, formidable, leader is the one who has a function related to the work he or she enjoys and is given a position by society or some controlling body where that function can be used, has an agreeable personality, and attracts a group of followers, who assist in the performance of the function, which advances society's condition.

IMPLICATIONS FOR ENGINEERS

According to what is regularly published, we are expected to be leaders, in the profession and among society. All well and good, but must we expect that, by becoming some form of leader (by position, function or personality), we will automatically attract followers? As pointed out above, those who are appointed as managers become leaders, and followers come automatically from the organisation, the hierarchy system, in which most of us work.

However, as shown above, it is possible to be a leader, of *a something*, rather than of a group of people, and the implication (lesson?) from that is: if one gets an idea which appears to be worthy of development, one should not discard it because one feels alone with the idea. History has shown that many developments have come unbidden from one person's mind; if the idea had been tossed away we would not have, for example, penicillin or stainless steel.

Senior engineers tend to acquire positions which set them above others, fellow-professionals, tradesmen, clerks, and others, in which positions they face an ethical question argued very clearly in a recently-discovered book, though without adequate resolution [15]. Here is a philosophical remark, it is often, indeed almost usual, to find leadership is a lonely business, as did that captain, even when a band of followers is attached to the leader, because the role sets that person aside from the group.

CONCLUSIONS

Readers of this article may now believe this author has a low opinion of leadership, whether taken as an entity or as a management function. Not so: the author believes leadership exists and is a vital part of human existence. The proof comes from the many examples in history, the problem is no-one can explain it, all we can do is observe individual cases, analyse each, and conclude: *Well, there you are, that is how leadership works.*

Gilbert's *leaders* stand out and are accepted by theatre audiences because they occur in real life, in the real world in which we live. The satirical presentation may soften them but does not detract from the intended criticism. But what about leadership itself, per se, intrinsically? Yes, we see examples, which appear in writings, which may be regarded as more scholarly, and the examples show us features which exist. But of the topic itself, we can never learn what it is, how it comes about, it is all a mystery. We may search and hunt for any level of understanding, but every step takes us deeper into it. A line from a musical seems to fit: *Fools give you reasons, wise men never try.*

Here seems to be the place to insert a cautionary *however*, a questioning thought, perhaps looking ahead to that future writing. Is all this chatter about *leadership* of any real importance? The Institution of Engineers, Australia (IEAust) has been joining together two *management functions* in the name of the Centre for Leadership and Management, and there is a sensation that these, like male and female, and remembering Disraeli, embrace each other. That is, now also remembering Fayol, leadership is part of management's overall collective functions: Planning, Organising, Leading and Controlling, so why make it separate? A *Centre for Management* would be adequate, more than sufficient?

And so we come to a conclusion resulting from the meditation gone into the several sections of this article. After all, really, what does matter? In the management of our industry and business? Leaders? No, what matters is there are good bosses, men and women, who are not referred to by the fancy, fanciful, title of *leader* but just fit those two simple four-letter words, *good boss*, people who do their boss-job, their management-job, well, and inspire others (below and above them) to do theirs well. All the verbiage about leadership may be disguising and short-changing that real need. This author's life with a few good bosses, one while an apprentice, one when a maintenance engineer, convinces him that is so; he also had time with others who would be called leaders but were quite dreadful bosses, two in industry and others elsewhere, and those times are even more convincing that being a good *boss* is what really matters.

CONCLUSION

To conclude here, we turn to a rather sceptical, perhaps even cynical, chapter in a work which describes in its title one of the real truths of management; either in part or as a whole, management is extremely fuzzy, and of all the management functions leadership is the fuzziest [31]. Recognising that adds to the magic of successful leadership in management, something to which student engineers look forward to observing, learning, applying and experiencing.

But doubtfully understanding, knowing how. After all, few bosses do. And, the few who do know, may not know, they know but act successfully as good bosses, what we call leaders, due to a mixture of trait and circumstance.

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BIOGRAPHY

Ronald Bentley Ward entered professional engineering via an Associate Diploma in Mechanical Engineering from the Sydney Technical College following an apprenticeship in an aircraft engine manufacturing factory. He progressed from the diploma to a Bachelor of Engineering at the University of New South Wales (UNSW), Sydney, while working in the chemical industry on projects and maintenance, and during that time completed the Master of Business Administration at Macquarie University, Sydney. In the late 1970s, he worked for consultants, and in1984 left industry to take a lecturer position at the University of Technology, Sydney (UTS), in the Faculty of Engineering, but specialising in non-technical subjects including management, communication, technological change and risk. The topic of his Doctor of Philosophy thesis (UNSW) led to private consulting work on industrial safety and analysing accidents, in which he still works after retiring from UTS in 2001, and in which area he has written over a hundred reports, in addition to over a hundred journal and conference papers, and several series of management case studies. In addition to that consulting work and writing, he is a company director and a Visiting Fellow at the UNSW.