Journal of economic refutations - a proposal

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JOURNAL OF ECONOMIC REFUTATIONS - A PROPOSAL

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ABSTRACT

Economics is drowning in a flood of bad books and papers, many of them written with the sole objective of getting another publication, many hurriedly written, sloppily researched, culpably negligent or fraudulent. Inevitably, good, honest economists are influenced by some of these, with the result that they produce bad economics themselves. Some waste their entire career by basing it on bad economics they learnt at university.

Many journals are reluctant to publish refutations for commercial reasons. Refereeing is necessarily an imperfect system.

A Journal of Economic Refutations would have the main objective of identifying bad economics so that researchers and professionals could avoid it, and so the public would not suffer the harm it causes. It would identify people publishing bad economics, so publishing sloppy, culpably negligent or fraudulent economics would damage their careers, rather than helping it. A refutation is worth a hundred normal papers, sometimes thousands. Another objective is show readers how to refute – a key professional skill for real-world economics.

The approach and criteria to be used by referees are set out. Methods of reducing the workload on specialist referees are suggested.

Journals of Refutations could have a similar impact in other subjects.

INTRODUCTION

Economics is drowning in a flood of papers, journal articles and books, producing so much noise that we cannot find what we should be reading. More important, we cannot identify what we should not be reading – bad economics.

All of us make mistakes sometimes, perhaps because there are gaps in our theoretical toolbox, perhaps because we make a mistake in our theory, perhaps

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because we mistype data or formulae into our spreadsheets, perhaps because the data and information we use to build our models are wrong. We have insufficient time, money and support to do the job as we would wish, and we have to produce our reports when a decision is needed, not when we are satisfied with what we have done. We are taught to recognize this, and to check and recheck our work.

Other causes of error are more common and more dangerous. 'Publish or perish' pushes academics into churning out papers purely to get the publications necessary to keep their jobs, let alone to get promotion. They are pressured into writing hurriedly, often producing badly written, sloppily researched, culpably negligent or fraudulent research. When you work on a theoretical model, you keep coming up with what strikes you as a brilliant, scintillating, original piece of theory. Sometimes it takes you only a few minutes to see that it is wrong, sometimes weeks. You know, though, that only someone who is as deep into the subject as you are will see the error. You can be fairly confident that no referee will, and there is a good chance that it will be accepted for publication. You face a moral hazard.

It is now claimed that 20% of medical research is fraudulent, and that researchers should start with the premise that any paper they read is fraudulent (Smith, 2021). An increasingly large proportion of research has to be allocated to replicating past research to identify the fraudulent, rather than to make new breakthroughs. Medical researchers fake research knowing that they will kill, maim or otherwise harm patients. We cannot assume that economists are any more moral. Certainly, there are whole research programmes in economics where it might be argued that most of the research is not just culpably negligent but fraudulent, and this may have caused large scale death or destitution.

No economists have both the time and the skill needed to check all they read for error. This means that even the best economists, and the most honest, believe much of what they read, and they are influenced by bad economics. They cite this research, and others follow by citing it, often when they have not read it themselves, and patently bad research gets thousands of citations just because it produces results that researchers welcome.

In an ideal world this would not happen. Economists would publish refutations of bad economics. Others would read these refutations, or at least know that they have been written, and would stop reading the bad economics. Everyone would know that if they skimped their research or were culpably negligent, they could harm their careers.

Until this century an economist could submit a critical comment on a journal article to the journal that published it. The editors felt themselves honour bound to publish this if it was at all competently written. The critics went to great lengths to ensure that their comment was fireproof, asking all their friends and colleagues to be hypercritical: the big danger was that the author would write a convincing reply which would be read by their invisible college. They most certainly would not write it on the off chance that a sub-standard comment would get past the editorial process. Today journals and editors refuse to admit that they have published bad economics, possibly because they fear that this would damage their brand image. Some refuse to publish any comments at all. Others make comments go through a lengthy process of evaluation by multiple editors and referees, when the journal's editors and referees were the very people who approved the dreadful economics being criticized. Dishonest referees may reject on minor or specious grounds, or because the criticism threatened them.

It is almost unknown for a critical comment on one paper to be published in another journal, so someone who writes a fireproof refutation of this paper has wasted their time if the journal suppresses it – a serious cost to the writer as well as to the profession.

The journals and publishers continue to sell the papers without alerting readers to their weaknesses, which is, arguably, an offence under EU or British consumer protection and trade protection legislation, and, indeed, most national laws.

Why does rubbish get published?

The refereeing system may well be the best we can hope for, but it is imperfect. Any academic common room will produce horror stories: when one referee rejects a paper as self-evidently right, while another rejects it as self-evidently wrong; when one rejects it as trivial, while another calls it 'the most important paper this journal has published'; when a paper rejected by half a dozen journals gets thousands of citations once it is published – and many of the authors of these classics say 'I had more trouble getting this accepted than anything else I have written'.

Referees have the normal human weaknesses. They may make decisions on heuristics rather than logic (Tversky & Kahneman, 1974; Kahneman, Slovic, & Tversky, 1982; Kahneman, 2012); they are prone to cognitive biases (Benson, 2022). People are prone to 'wilful blindness' not believing and not accepting research that makes them feel uncomfortable, or that threatens their self-belief or career (Heffernan, 2011). Some deliberately suppress refutations that challenge their beliefs, their work or their professional reputation.

All this may be more or less subconscious, but some referees knowingly suppress research that challenges their own research, which challenges the research programme they have spent their career on, that threatens their colleagues, their department, their students, their teachers, their friends, people from their university or their hometown. In Ireland, one publisher of academic journals felt it necessary to send all papers abroad for refereeing, because of the academic politics in a small island. There is a moral hazard in refereeing.

The conclusion is that perfect refereeing is impossible. At the same time journals are reluctant to publish criticisms of anything they publish. There is need for at least one more level of refereeing to weed out the rubbish and the harmful.

OBJECTIVE

The Journal of Economic Refutations will publish refutations. Just that. It will not publish normal economics, criticising existing work and suggesting improvements, though, inevitably, the dividing line is not always clear.

A refutation identifies errors in fact or theory, or both, in a book or a paper, and may argue that this means that some or all of the book or paper is wrong.

The Journal of Economic Refutations accepts that there is a range of beliefs on what constitutes a refutation and will publish papers using different beliefs.

> "*The ingenuity of these nineteenth century writers knew no bounds when it came to giving reasons for ignoring apparent refutations of an economic prediction, but no grounds, empirical or otherwise, were ever stated in terms of which one might reject a particular theory*" Mark Blaug, The Methodology of Economics, (1980, p55).

Result 1

The refutations that are published in this Journal will be listed in the proposed Database of Economic Refutations (which should be launched in tandem with this Journal) (Bowbrick 2022), so that economists can easily find them and avoid bad research. It will become normal to check for refutations before starting a project or citing an author or paper.

Result 2

This could lead to a sharp reduction in the amount of bad economics published. The refutations will name authors publishing bad, sloppy, culpably careless, or fraudulent research. This will introduce a real risk to authors: bad work will be made public, and their self-esteem, reputation and career may suffer.

Result 3

This will give honest, competent economists the chance to enhance their careers by publishing work with enormous impact. One refutation is worth a hundred normal papers, sometimes thousands. It would be nice to think that professional rewards reflected this.

Result 4

This will make ethics integral to economic research, rather than an optional extra indulged in by eccentrics.

Result 5

Readers, including people who referee for other journals, will learn the commonest errors, and will become more skilled in identifying bad economics.

Result 6

This will give essential training to professional economists, training which is not given now. Real-world professional economists are exposed to bad, unreliable and contradictory information, to bad, unreliable and contradictory models, and to bad, unreliable and inapplicable pure theory. We try to cut through this to produce results which are at least not harmful, causing death and destitution, and which we hope are more useful than a wild guess. We have to identify and discard bad information, bad models and bad theories. We construct our own models then try to refute them, finding where they contradict available evidence and available data, for instance. Then we try to refute them again and again, until we reach a defensible model or run out of time and money. Few people get any training in this essential skill.

Result 7

Attempted refutations give more credibility to good work. Economics that has never been challenged has limited credibility. Economics that is repeatedly challenged and that survives the challenges gains credibility with every test it survives (Popper, 1974; 1975). Inevitably, some of the refutations that are published will be challenged and will themselves be refuted. This is a positive.

Result 8

This Journal and the Database on Economic Retractions work together to get the message directly to the people who will use it. It will bypass the universities, journal editors, publishers and academics who do so much to prevent retractions from being published (See Retraction Watch). Conceivably, editors and publishers will be embarrassed into retracting very bad papers. I know of no retractions in economics, though they are becoming more important in other areas such as the experimental sciences.

REFEREEING REFUTATIONS

Refutations, including critical comments, are needed when the refereeing system for normal journals has failed. Referees, sometimes hundreds of referees in a single research programme, have failed to notice errors that seem obvious with hindsight, when a critic writes a refutation.

If refereeing is normally this bad, how should a critical comments and refutations be refereed and who should referee them? The Journal of Economic Refutations must recruit referees who understand how refutations work, who understand what constitutes an argument and who can assess whether an argument is valid. Such people are rare.

It is not necessary that the referee is also a subject specialist. In practice all journals find it difficult to find a subject specialist and indeed editors find it difficult to match the subject specialists they have to the papers on the subject. Finding someone who is both competent in refutation and a specialist on the subject of a refutation would be extraordinarily difficult. However, it is possible for people to referee refutations well outside their own specialties.

Inevitably, problems could arise when subject specialists are asked to referee papers that attack their favourite approaches. Inevitably, if a paper refutes a research programme all researchers working in this programme will face a moral hazard if they referee.

To minimize the workload of these few referees competent in refutation, special measures will be taken to identify papers which need work before they are ready for refereeing. These are discussed below.

CRITERIA

The Journal of Economic Refutations aims to publish papers that are valid refutations. Some would be what were, and sometimes still are, published as ‘critical comments’.

Rigour

The refutation should be rigorous, a carefully argued, evidenced, attack on a defined position. It should be logical. Any evidence should be presented properly and in a form in which it can be checked. Information needed for checking, including raw data, statistics and full quotations should be provided to the referee even if it is not proposed to include them in the published paper. Theory should specify assumptions and define terms – this may prevent people from arguing on different premises and at cross-purposes.

Style, tone, abuse and criticism

The objective is to destroy error. Refutations should not cover up error to be 'polite'. They should not pull any punches. It has been argued that there is an 'inoculation effect', that if people are presented with a weakened version of an argument, they will decide that it is unconvincing. It is then difficult to get them to change their minds as they are unlikely to look at the strong version, let alone to read it with their full critical ability. It has also been argued that it is often impossible to convince true believers that they are wrong, so the paradigm continues until they retire, which suggests that one should concentrate on the people open to persuasion.

Papers should be written in the normal academic and professional 'System 2' mode, which is reason-based and which analyses with logic and evidence and in which reality is described in abstract words and numbers. Any conclusion that follows is based on conscious appraisal of events. Hard thinking, in fact. (See, for example, Epstein S., Slovic, 2007; 1994; Kahneman, 2012, for use of this concept in an economic context). This mode forces writers to think logically and dispassionately, and it puts pressure on readers to think logically and dispassionately

The alternative mode is System 1. Politicians and confidence tricksters take a lot of trouble to stop people from using System 2 when examining what they have said and done: it is a lot easier to fool them if they can be manipulated into using System 1 instead. System 1 is emotional and experiential, particularly in the 'affect' version, which has connections by association; it works through images, metaphors and anecdotes; the message can be processed rapidly; it is perceived as self-evidently valid, not requiring any evidence. Slovic talks of *'an affect heuristic in which people let their likes and dislikes determine their beliefs about the world.'* (Kahneman, 2012, p. 103) System 1 is a lot less time-consuming than System 2.[2]

This switch is also explained in the discipline of rhetoric, which makes the distinction between *logos*, providing the logic and information, and *pathos*, developing

[2] It is not suggested that System 1 is useless. One version is experience, where for example, someone with a lot of experience of statistics uses this experience to spot immediately where a statistical series or statistical method is suspicious, then moves into System 2 to examine whether or not it is valid.

the emotion that will eventually get action (Leith 2011; Charteris-Black 2014). Dishonest politicians try to get readers to think with *pathos* only, ignoring the *logos* completely. Nowadays, they may, for instance, communicate mainly through Twitter, which does not give the space for logic and analysis, and so forces the discourse into *pathos* mode. People who are confident that the facts and logic support them can be expected to write with a style and presentation designed to get readers to use a highly critical *logos* (akin to System 2). People who do not believe that the facts and logic support them may use abuse as a form of *pathos,* producing emotions that shift readers into an uncritical, emotional, 'affect' approach.

It should be noted that journal editors and referees are also readers, who may well adopt 'affect' heuristics when refereeing, rather than System 2.

Replies and Rejoinders

There are so many papers published today that authors whose work has been refuted may ignore the refutation in the hope that nobody they know will find it. The proposed Database of Economic Refutations will change this. It will become probable that employers, possible employers, funders, colleagues and anyone writing on the subject will become aware of the refutation. These people may well conclude that if there was no reply to the refutation it was because the author's work was indefensible.

We can expect, therefore, that a substantial proportion of the authors will reply to a refutation, and the critic will write a rejoinder, and that other economists might join in. This is, of course, how science is supposed to progress, so it is welcome.

Replies and rejoinders require particularly careful refereeing. People who have made honest errors can be expected to stick to the rules. People who believe that their careers are at risk because their research misconduct has been exposed can be expected to act dishonestly to suppress criticism.

It is common for them to operate in System 1, using emotion rather than logic and rigour. They may use emotive language, abuse, sneers, ridicule, personal comments, etc. to get the reader into a System 1 mode, ignoring the hard fact and theory. Often, indeed, one can quickly find the dishonesty in a reply by looking for the abuse. The policy of the Journal of Economic Refutations is to refuse to publish this: System 2 is required.

If a refutation sets out a dozen independent, formal, criticisms, each fatal to the paper, the original authors may realize that they cannot possibly challenge the refutation. They may then ignore ten of the criticisms, and concentrate entirely on one or two of them, pretending that this is the entirety of the refutation. This is dishonest. The author should set out which criticisms they are not disputing, and a reply which does not do so should be rejected. There is of course no objection to a reply responding to a few of the criticisms, if it explicitly says it is not responding to the whole refutation. It must not be suggested that because one or two of the criticisms are weak, or even wrong, all the others are too.

An extreme reply may not respond to any of the criticisms, but to criticisms that the critic did not make. Again, this is unacceptable.

Politicians who find they are facing a set of unanswerable criticisms may use a strategy they call ‘throwing a dead cat on the table’: they make a startling statement unrelated to the issue, so startling that everybody discusses it, instead of the criticisms. As they say, one thing you can be sure of is that, if you throw a dead cat on the table, everybody will be talking of something else when the cat is removed. Replies may achieve this by raising an irrelevant point, for which they provide no evidence or analysis, saying that it counters criticisms. They may raise new and irrelevant points not in the refutation, or indeed in the paper being criticized, saying that it counters the refutation.

They may attack a critic, saying that their criticisms, their evidence, may be ignored because of their political beliefs, their economic stance – Marxist or free market, perhaps – or even their religion, race or nationality.

They may produce a list of references, claiming, without argument, that this counters criticisms. A reference is not an argument or evidence. A quotation of a few sentences is not an argument.

They may respond to an unanswerable criticism by sneering at the critic’s turn of phrase or use of English. Or claim that the critics are totally ignorant of a subject in spite of having published extensively on it. Or accuse them of telling lies, without any evidence.

It is very difficult for honest critics to respond to dishonest replies. Inevitably if they respond to the parts of the reply which are pure diversion, they will be playing into the hands of the offending author, drawing attention away from the unanswerable criticisms. If they ignore the diversions, a reader might be excused for concluding that they had no answer. Just restating the unchallenged criticisms in the refutation takes a lot of space.

Novelty is not a criterion

Novelty is not a criterion. Other journals may reject refutations on the grounds that ‘there is nothing new in this’ (a statement that may mask all sorts of hidden objectives). But clearly there is novelty: the offending paper was accepted by two to five referees and an editor or two, so the refutation was novel to them, at least. What is well-known to one or two referees is not well-known to everyone.

Some refutations attack papers because they make well-known errors, ones we were warned about as undergraduates, but even very high-profile economists make such errors. All economists should be reminded of these errors, both so they do not make the errors themselves, and so that they avoid papers that do make these errors. For example, it would be useful to publish refutations applying the American Statistical Association (ASA) 'Statement on Statistical Significance and P-Values' which sets out six principles underlying the proper use and interpretation of the p-value.[3] There would be no novelty in the theory, just in exposing work that misuses it. One should not dismiss these refutations as 'flogging a dead horse': Arthur Koestler (1967) pointed out that this dismissal is a strategy to suppress the facts – dead horses have a habit of getting up and carrying on.

This is not suggesting that critics should or would write refutations on all papers doing 'P' hacking over the last thirty years, for example: they can be expected to concentrate on recent papers in 'A1' journals to get the maximum effect, and to boost their careers. Refuting long forgotten economists is pointless (and probably just 'normal' economics, but any books and papers that influence today's economists are fair game.

Clear decisions

The Journal does not require a single, decisive, refutation of the paper or research programme as a whole. There may be refutations which affect part of a paper or research programme. A single refutation may include several independent refutations each of which is fatal to the paper as a whole and several independent refutations each of which is fatal to one part of the paper. Other critics may see that there are valid criticisms of this research programme and may then produce their own criticisms using their own knowledge and theoretical toolboxes. The combined effect of these may produce a decisive set of refutations.

'Impact' is not a criterion

It is the policy of the Journal of Economic Refutations that it is worth publishing a refutation of any paper that has been published. This does not suggest that critics will concentrate on 'easy targets': they will get more kudos if they refute papers and parts of papers in 'A1' journals rather than 'predatory' journals – both publish a lot of

3 [http://amstat.tandfonline.com/doi/abs/10.1080/00031305.2016.1154108#.Vt2XIOaE2MN].

rubbish. They may be expected to concentrate on recent papers and classic papers rather than ones using long discredited economics.

‘Impact’ is subjective. It is not related to citations for instance. A refutation that prevents famines will be cited only in a small research programme. A refutation that kills a research programme may get no citations at all: the people who read it immediately move out of the programme. A few hundred retractions pointing out well-known errors may change the working practices of most economists but get no citations. Refutations may be put on student reading lists, so thousands of people actually read them, read them thoroughly, and change their working practices as a result. This does not necessarily mean that they are widely cited – but then the ‘t’ test we learned at university is used millions of times a day, but the author is never cited. Some of my refutations have got on reading lists in universities around the world and have stayed there for decades.

The proposed Database on Economic Refutations will mean that refutations get far more citations than they did in the past. It will no longer be safe for a dishonest researcher to ignore inconvenient refutations.

The impact may also accumulate over time. A critic may identify errors in one particularly bad paper and publish it as relevant only to that paper. They may repeat the process with two or three more bad papers, and then find themselves able to present a refutation that effectively destroys a research programme. The Journal helps this process because other critics are likely to join in, once they realize that the research process has weaknesses. A similar process is to read papers in a research programme, noting what each researcher says is wrong with everyone else’s research and noting their caveats about their own research. This may be developed into a devastating attack on the whole research programme, again based on papers that may appear to have almost no impact by themselves.

Inevitably, referees do not know the impact a refutation will have.

Obscurity

The aim of the Journal of Economic Refutations is to get action, widespread action. A rejection that is only comprehensible to half a dozen people, people who are totally committed to the theory that is attacked, is unlikely to get action.

The ideal refutation should make as much as possible seem self evident, so that as many people as possible inside and outside the research programme understand it and it sticks. This may obscure the fact that the critic made their breakthrough by applying a particularly difficult bit of theory to one aspect of the offending paper and could then follow up by high-level research identifying the implications.

How many errors?

Refutations may concentrate on one or two fatal errors, or may list a dozen errors, some fatal to the paper as a whole, some to important components. Some may set out dozens of errors, none fatal, but which, taken together, show that the paper has no credibility. All these approaches are acceptable.

Normal economics is not published

The journal will not publish the disagreements that are part of normal economics. It will not publish new theory which is presented as being better than the existing theory or new information which casts doubt on existing models.

Alternatives are not published

A comment or refutation shows errors which destroy some or all of a publication or a research programme. It does not offer alternatives. There are likely to be many alternatives, and building blocks for alternatives, in the literature already. Removing the rubbish makes it easier to find them. Any new alternatives should be presented in the normal literature.

Identifying bad economics is sufficient. There is a serious risk that a superb refutation with alternatives attached will be met with devastating attacks on the alternatives, which will be used to conceal the fact that their refutation is fireproof. It is probable that many alternatives exist in the literature but are drowned out by bad economics. If not, the refutation may encourage other researchers to produce alternatives. In many cases the refutation produces a dead end. The research programme is refuted. There is nothing more to say. It is unnecessary and no alternative is needed.

No alternative is needed in most cases. If someone has produced illogical theory, false evidence or bad econometrics, their work is wrong and should be shown to be wrong. Usually, it is not feasible to replicate the study. A refutation may ignore ‘errors’ but show that the paper or research programme asked a meaningless question.

Minimizing the workload of referees

There are two very scarce and very valuable resources. First, there are referees who can recognize refutations and can refute the refutations they are refereeing if they are inadequate. Second, there are the critics who write refutations. The policy of the journal is to minimize their workload so that they can spend all their time doing what they do best.

Obviously, any critic is delighted to have a referee who will point out weaknesses in the argument or identify embarrassing errors, perhaps errors fatal to the refutation – nobody wants to make a fool of themselves in public. They will welcome suggestions on evidence or arguments that they might wish to include. They will welcome suggestions that some arguments might be excluded because they are weak or they address a relatively trivial point – a critic does not want to receive a reply which concentrates entirely on these. Clearly, the critic may disagree with the referees on these suggestions.

The Journal will not ask these referees to do proofreading, nor to act as joint authors. Neither referees nor critics will be expected to respond to deal with the same paper half a dozen times, in attempts at cosmetic improvements

REFEREES ARE NOT JUDGES

It is not the job of referees to decide whether the author or the critic is right. It is up to the readers to decide whether they are convinced, and they may withhold judgement until they have read replies and rejoinders. They may find this particular series inconclusive and wait and see what further attempts at refutation are made. They may change their minds at a later stage. Inevitably readers will have different perspectives, depending perhaps on their product knowledge, market knowledge, theoretical knowledge, belief systems and political views, and these will be different to those of referees and editors.

It would, in any case, be impossible to identify the small number of suitable judges, competent to make this decision, from the much larger number of people who think that they are competent, and those who think that they must be competent because they were asked to referee.

REFEREES ENSURE FAIR PLAY

Referees ensure fair play. They are concerned that the attacks are rigorous, raising points that will either be answered or will leave question marks. Many of the points they take into account are set out in 'Guides for Authors' on the Journal's web site.

LENGTH OF PAPERS

The Journal of Economic Refutations aims to give enough space for a refutation or critical comment. Some refutations may be as short as quarter of a page, pointing out a single fatal error. Some may be 20,000 words, either listing a lot of fatal errors, or building up one or two complex arguments. Clearly, if an author has published a 10,000-word paper, it would be absurd to limit the critical comment or refutation to, say, 1500 words.

FEAR OF REPERCUSSIONS

PubPeer puts preprints, mainly scientific, online and encourages people to put comments below so that the authors can produce an improved paper for journal publication or suppress a paper that has fatal errors – many of these comments have identified fatal errors leading to retractions. Very bad papers, often faked, were identified quickly, before journal publication. Authors were told of weaknesses. New possibilities and links were pointed out.

However, *PubPeer* found that people were reluctant to comment because of the fear of repercussions, so they gave them the option of commenting under a nom de guerre, and the system started to work as it should. They have gone further: they have adopted software which means that they cannot themselves identify the critic, so they cannot comply with requests for a critic's name, even court orders. This may be seen as a witness protection scheme.

People who have studied the evidence may reasonably conclude that the only rational choices are to write under a nom de guerre or not to criticize anything whatsoever. If they write under a nom de guerre, they do not to get the recognition they deserve for their refutations. Possibly they may go public when their position is unassailable.

There is a vast amount of evidence going back half a century on the repercussions when research misconduct is exposed. Retraction Watch is constantly reporting on new examples.

Personal abuse

Critics may receive personal abuse, sometimes sexually based, sometimes with threats. Sometimes it is direct, by letter or email, sometimes on the wider internet, on Twitter for instance. Some comes from the authors – even supportive comments suggesting improvements can arouse a violent response. Some comes from people in their department or university, or their friends, people with no in-depth knowledge of the subject and no apparent understanding of the criticism and is, therefore, pure abuse. Some comes from other people in their research programme who are themselves threatened by the refutation.

Often people who are angry to find out that they have been tricked take out their anger on the person who exposed the trickery rather than the trickster – shooting the messenger. This may be more likely if the falsehoods are shown to be obvious.

Letters or emails may be written to journal editors, departmental heads, prospective employers (academic or other), funding organizations etc. denouncing the critics.

Critics may suddenly find that their articles, instead of being eagerly accepted as state of the art, are rejected without being sent to referees. Conference papers are rejected, and they may not be invited to conferences. They do not get research grants. They may not be interviewed for jobs, or if they are, they may be asked to defend a refutation rather than to explain their major research programme.

Whistle-blowers and their own organizations

Whistle-blowers put their careers at risk by exposing incompetence or fraud in their own organization. Other members of staff often close ranks to protect senior staff or to protect the reputation of the organization. Temporary staff cannot get tenure and are forced out of academia. Permanent staff may find that they are cut off from promotion, removed from funded teams, put into dull positions or put on teacher-only contracts. Even if they have the support of their own department, this department may come under heavy pressure from other departments and university management. This behaviour is observed in universities from the highest status to the lowest.

Government departments and funders may warn that if X is published the university or the university department will get no more funding. Researchers are put in the position where they put their colleagues' future as well as their own into danger.

LIBEL

The journal will be published in a country which gives protection against libel. A refereed academic paper is privileged under the British Defamation Act of 2013, but the USA Speech Act is considered by many to give better protection, to US residents at least: it makes foreign libel rulings virtually unenforceable in US courts.

Papers may not carry privilege if they are shown to be made with malice. It would appear to be unwise to make statements about an author's motives and to avoid personal abuse. It may be appropriate to set out what the author has done, systematically misrepresenting the facts in their sources, for instance, and to let the readers draw their own conclusions.

It is possible that, once a lawsuit is announced, contributors to the journal will examine all other publications by the author, perhaps showing serial misconduct, which would limit their chance of success, and the possibilities of any damages.

DANGERS OF A TAKE OVER

There is a danger that this journal may be taken over by people from one school of economics, of one political persuasion, or otherwise likely to be biased. Similarly, one can imagine energy companies setting up a Journal of Climate Change Refutations, or big pharma setting up a Journal of Bio-Medical Refutations.

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