

THE CAUSE OF THE NEXT INDUSTRIAL ACCIDENT: WILL IT BE MAN...OR WILL IT BE MYTH?

*A response from Difford to Manuele and the ASSE regarding the ASSE 'peer reviewed' article -
Reviewing Heinrich, Dislodging Two Myths From the Practice of Safety*

Mr Manuele, your American Society of Safety Engineers (ASSE) 'peer reviewed' article of October 2011 commences with the following...

"...Stefansson (1928) makes the case that people are willing to accept as fact what is written or spoken without adequate supporting evidence. When studies show that a supposed fact is not true, dislodging it is difficult because that belief [has] become deeply embedded... . Stefansson pleads for a mind-set that accepts as knowledge only that...which cannot be logically contradicted".

Here, I am concerned only at this time with your belief that you have produced evidence within your article that refutes Heinrich's premise that *unsafe acts of workers are the principle causes of occupational accidents*. Sir, you have done no such thing; indeed, your article appears to be an attempt to keep Multiple Causation Theory alive via your belief rather than to scientifically and logically test either.

All I see in your article (partly restating Petersen 1971) is support from quarters where nought but support can only possibly emerge. However, may I respectfully remind you that no amount of corroboration can prove a theory; science, as you know, moves forward by disproving them.

Difford's (2011) "Redressing the Balance – A Commonsense Approach to Causation" has scientifically and logically refuted multiple causation along with Bird's (1974) 'updated sequence', Reason's (2004) Swiss cheese model and his supporting premise/s. Multiple causation theory fails even the basic of tests that Stefansson urges and I fear that your failure to realise that may be due to the cloud of confirmation bias and group think beneath which many unwittingly reside.

It appears sir that, with neither scientific nor logical basis for your belief in what is (when relevant data is analysed objectively) an empirically contrary theory, Heinrich is your sole (albeit specious) consolation; if I am wrong, then your opportunity to correct me will present itself shortly.

The bases upon which I refute the aforementioned models and 'theories' are contained within the 254 pages of Difford (2011) and there is no need for me to state my case here beyond that which now follows.

Within “Redressing the Balance – A Commonsense Approach to Causation” (Difford 2011:195) appears the following;

“Therefore...and for now, I will say this...

Unpredictable and uncontrollable consequences of natural phenomena aside, human behaviour, suitably defined, will be the underlying cause of any accident.”

[that statement is supported, inter alia, with this]...

“The behaviour of a man who has been found to be the underlying cause of an accident is attributable only to him...” (Difford 2011:196).

Other than advise you that the term underlying cause here means *the cause*, you do not here need any of the evidence upon which that statement rests. What you and the ASSE peer review panel must now do sir is refute that combined statement...soundly, scientifically and logically; the days of cherry-picking around Heinrich are gone.

Scientifically speaking, a single example to the contrary would suffice to encourage a revision of my statement. However, revision would need to be to zero percent (i.e. showing that a worker can never be the sole cause of an accident irrespective of their acts or omissions) in order for it to lend support to your belief in the validity of multiple causation since that theory says this...

“...we know that behind every accident there lie many contributing factors, causes and subcauses. The theory of multiple causation is that these factors combine together in random fashion, causing accidents” (Petersen 1971:13).

Inextricably linked to that statement, Petersen (1971:19-20) offers this...

(P1): “An unsafe act, an unsafe condition, an accident: all these are symptoms of something wrong in the management system”.

Consequently, given that multiple causation theory and Difford’s statement cannot co-exist, you must prove Difford’s (2011) statement false in relation to every industrial accident since the causal statement that you and the ASSE support is invariable and unconditional; i.e. multiple causation’s premise is that management (not workers), without exception, cause all accidents. If I might be so bold as to set out the task that your causal philosophy presents, you need to provide proof that all industrial accidents are causatively traceable to the management system (noting that such proof, by your own standards, must withstand tests that would otherwise render it logically invalid; i.e. your proof must not be able to be “logically contradicted”); alternatively, you might consider that your task is to provide incontrovertible proof, to the same standard, that no ‘worker’ has ever been the sole cause of any industrial accident. Either way, note that to find or admit but one exception will disprove multiple causation theory since its causal statement is categoric.

The monumental task that besets you sir is the result of the causal philosophy that you seem intent on refusing to let go of; i.e. the task is of your making...not mine. That

said, Petersen will surely have learnt from his own criticisms of Heinrich and you will no doubt have access to a tremendous amount of data upon which he based his assumptions as well as clear references to the relevant data and established body of literature that also supported him; indeed, assuming that your rejection of Heinrich is not based solely on someone else's belief, you should have more than enough to answer things yourself (noting, of course, that you need far more than resides within your article and earlier work if you are to comply, at the very least, with Stefansson).

Until such time as you address the task, Difford's (2011;195/196) statement remains as is and multiple causation theory is disproved; that is, you have no argument in relation to Heinrich's premise nor to Difford's (2011) revision of Heinrich's much maligned 88% to a logical 98%.

In closing sir, I am a preventionist. Whilst much of Petersen's (1971) work on safety management was ahead of its time, his analytical methods were erroneous and his resulting causal philosophy seriously flawed. Unfortunately, that general philosophy prevails and the work of many is regularly hampered by those who subscribe to the management failure myth. That sir is the myth that must be dislodged and safety will not move forward until it is. As I have said elsewhere, "Organisations with systems that are in full legal compliance and that achieve 100% in their audit returns are (in the context here) simply awaiting an injury producing or environment damaging accident" (Difford 2011:196). Whilst those systems must be in place, the prevailing philosophy will, by year's out, have turned a predictable number of workers into statistically inevitable corpses; this, despite management systems that held such to be impossibilities. Clearly, something is missing.

At this time, here and now, what is missing, from you and the ASSE for instance sir, is the defensible proof that keeps multiple causation theory and the management failure myth scientifically and logically alive. Many will be eager to hear the scientific, logical and empirical basis of such beliefs and your audience therefore awaits the release of your ASSE peer reviewed response.

Paul A. Difford

England, January 2012.

Note¹

Note²

¹ The opening title leaves, of course, 'acts of God' aside.

² On 10/1/12, the word "from" in the final paragraph replaced the words "according to". The essence of the document is unaffected.