

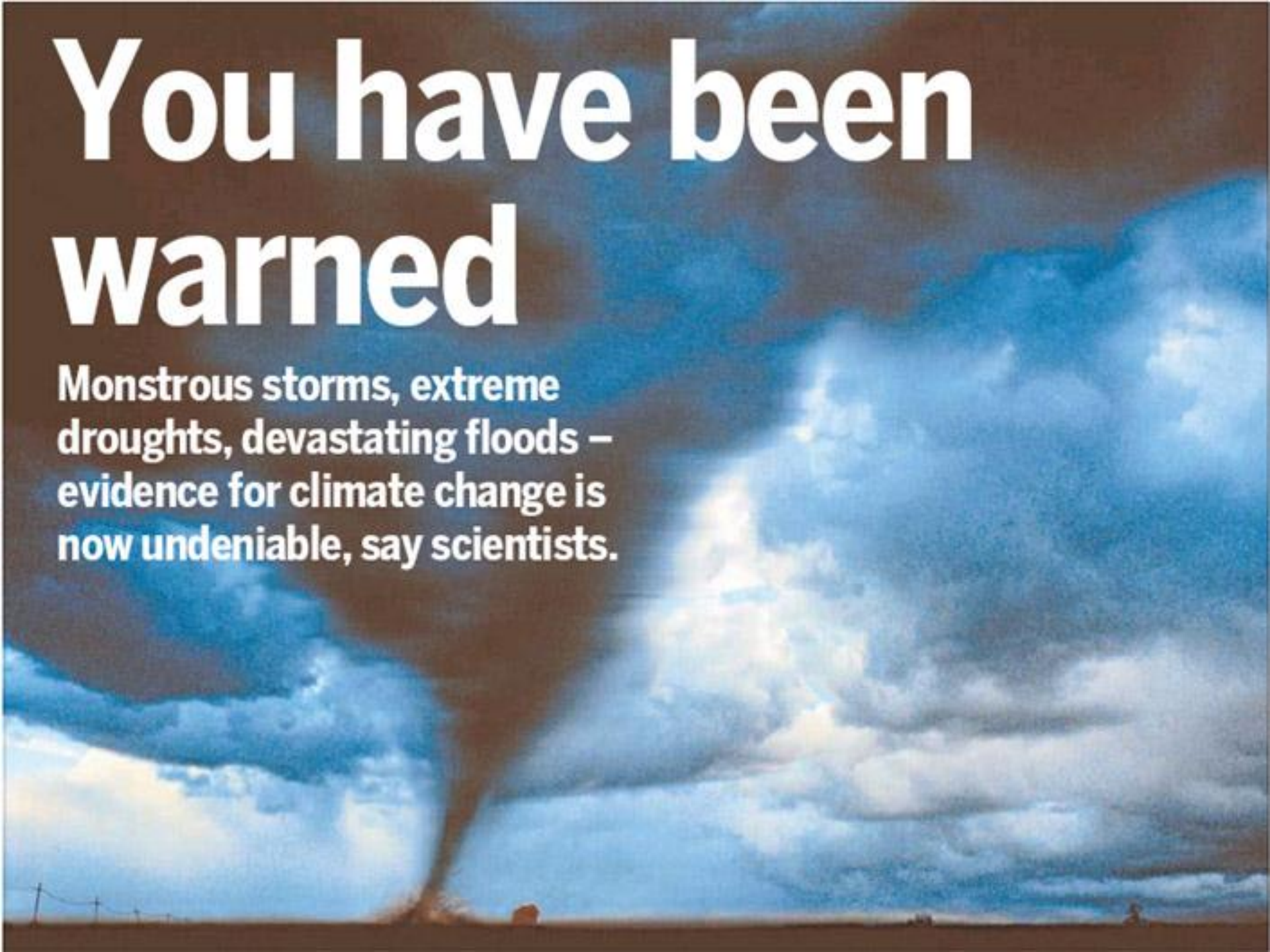
Warning Fatigue: what is it and why does it matter?

An exploration and critique of the literature

Brenda Mackie – PhD candidate
University of Canterbury
BushfireCRC

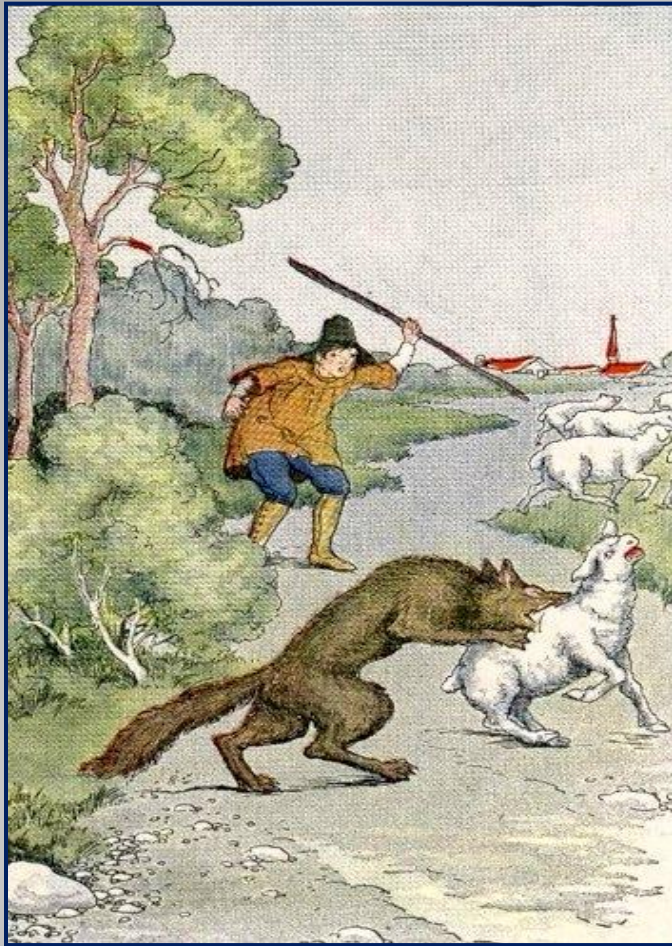
You have been warned

Monstrous storms, extreme droughts, devastating floods – evidence for climate change is now undeniable, say scientists.



- Warning fatigue and what the literature says about it
- The gaps I have found in the literature and one in particular
- How my research will address that gap

Cry Wolf Fable

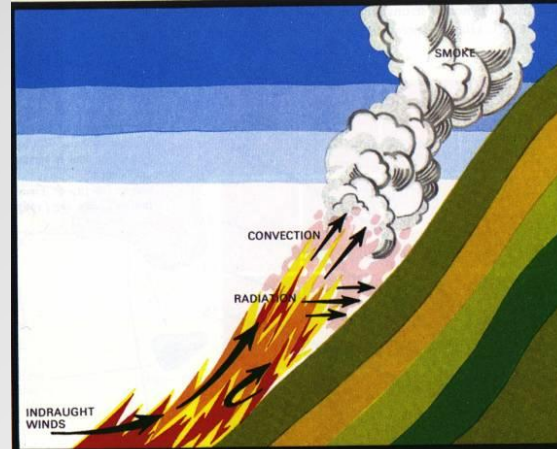
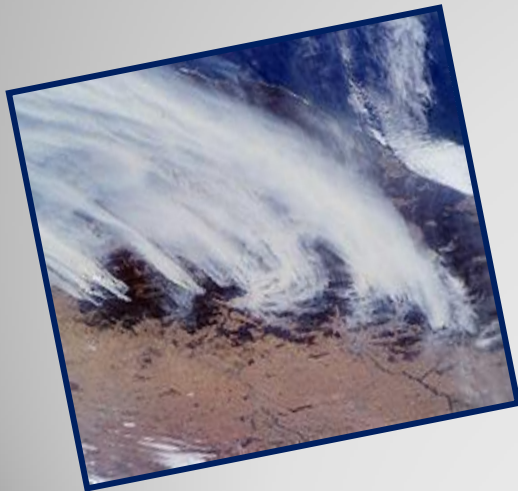
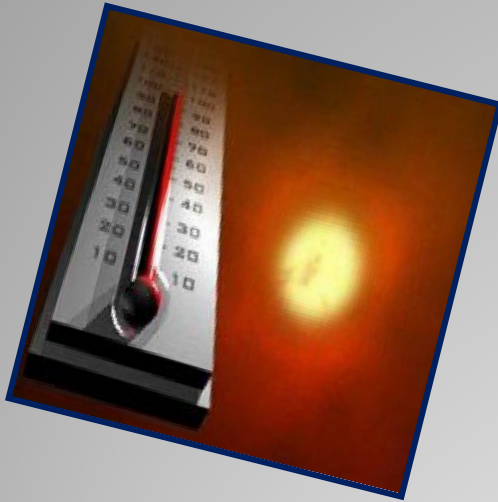


- Boy saw wolf and cried out to villagers for help
 - Villagers came but scared the wolf away
 - After several times, villagers didn't come and the wolf ate the sheep
- Meaning/Moral has changed
 - [from] 'sooner or later the boy will be right'
 - [to] The boy is a liar

Why does it matter?

- ‘more reluctant to issue warnings for fear of issuing a false alarm’
- ‘panicking the public whilst running the risk of under-preparing them at the same time’
- ‘reduce the problematic false alarm rate because of anticipated community complacency’
- ‘in order to reduce residual risk from bushfires in the Australian context’
- ‘Warning fatigue needed to be avoided’

Bushfire warnings



6.16 Schematic diagram of the effect of an upslope fire increasing radiation and convective heating of fuel ahead of the flame front.



After a Warning

- Life continues as normal; not regarded as life-threatening
 - Until social and sensory cues indicate anything to the contrary
 - ‘Frames of normal expectations’
 - Normalcy bias needs to be overcome
- Own evaluation of the environment to confirm warning
 - Social networks provide more clues
 - Social disorganisation
- Even when people seem to do nothing, they’ve paid attention to the warnings; they’ve just reacted to it in a different way

Literature limitations

- Breznitz (1984)
 - 'Warning fatigue too complicated to be studied in its natural environment'
 - Measured fear response using a threat of an electric shock
- Atwood and Major (1996)
 - Used terminology interchangeably
 - 'warnings' and 'predictions', 'false alarms' and 'near-misses'
- Cry wolf is a phenomenon that results from being 'over-warned' not 'over-predicted'
- Myths are a 'cultural explanation for events and phenomena that impact peoples lives'

Other ways of 'talking about' Warning Fatigue

- 'Repeated disaster warnings can lead to inattention, complacency and desensitisation'
- the public intuitively know that 'a false alarm is a much smaller problem than a disaster not warned about'
- 'because of these false alarms, the public will react with considerable scepticism'

False Alarms

- Alarm response is functional and productive
 - Warning fatigue.....a maladaptive response?
 - ‘People are often exposed to repeated messages in the absence of an actual event’
- Statistically significant false alarm effect in areas with a high false alarm ratio
- Repeated false alarms have an effect on both response and decisions to act

Does experience influence response?

- ‘A subsequent episode is automatically altered by past experience’
- ‘People with prior experience are likely to experience heightened stress and anxiety as a result of remembering and re-experiencing past events’
- ‘Less likely to personalize risk and respond to pre-impact warnings’
- ‘Experience has a curious effect on peoples risk perceptions’
- Gamblers Fallacy: Ignore the fact that random events are equally probable

Short-lead-time (SLT) & Long-lead-time (LLT) disasters

- All disasters are not the same
- ‘Short-lead-time’ (SLT) – come and go within a week
- ‘Long-lead-time’ (LLT) – over months or years
- ‘gradual and easy adaptation....rendered the warning *less effective*’
- ‘length of time before a disaster a warning is issued, has considerable influence in how messages are received’
- Entire alarm ‘unjustified in the first place’
- Experts ‘did not know what they are doing’

Short-lead-time (SLT) & Long-lead-time (LLT) disasters cont.

Cry Wolf effect is not a faulty premise at the *beginning* of the process but the *end* result of a series of warnings

- There is a strong correlation between:
 - Trust and credibility of officials
 - Public uptake and belief of messages

‘If the LLT threat has been ‘anticipated by numerous antecedent warnings’ then by the time a final and more urgent warning is issued, the threat is not given the attention it deserves’

Warning Fatigue?

- Long lead time (LLT) disasters
- Experience
 - severity, familiarity and consequences
- Trust and credibility
- Media
 - television, radio and newspaper?
- Risk
 - Fear and Uncertainty
- Social and cultural considerations
 - Australian bushfires
- Cognitive
 - biases of optimism, attribution
 - anxiety and anticipatory stress responses,
 - Normalisation adaptations.

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FIRES, FLOODS,
HURRICANES, TORNADOS,
EARTHQUAKES... NOW
THIS ICE STORM...
WHAT COULD
BE WORSE?

REMINDING
ME OF IT ALL!



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