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# Processing knowledge prior to representation

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What to consider before entering statements

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# Key points to consider *before* entering statements

1. Instead of a *literal* translation into AKT, you need to think about how best to represent the *meaning*
    - The aim is to represent what people **MEAN** as opposed to what they **SAY**
  2. Much information given during an interview is **implicit** so you need to make good notes in order to represent this information in the knowledge base
  3. Our role is to interpret the knowledge and then **TEST** those interpretations
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## Causal Pathways

### **“Rainfall causes an increase in flooding”**

is a simple unitary statement about flood generation

- We could enter it into AKT as it is **but** the actual situation is more complex than it appears at first
  - It's vital to look beyond the simple – we need to dig a little deeper to consider the different stages of a process and its impacts
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# Rainfall/flooding example

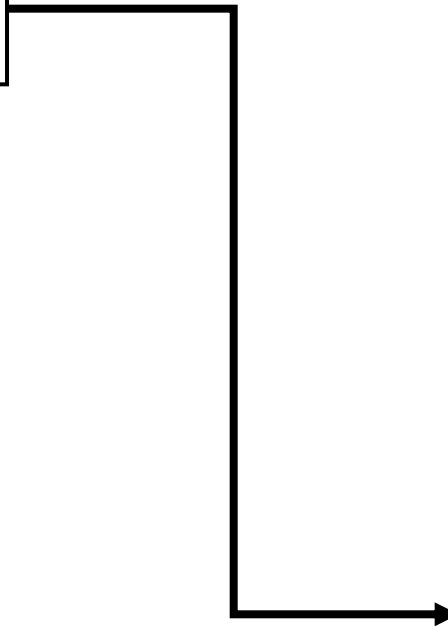
- Rainfall in itself is not a simple or regular process and neither is flooding.
  - There are temporal and spatial elements that we need to consider when representing the statement.

The context might be, for example:

- Rainfall regularly high between May and August
  - Very intensive downpours in June
  - Rainfall hits the ground resulting in run-off (and other processes) depending on land condition
  - Run-off results in flooding downstream once a threshold is reached
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# Simple diagram of flooding

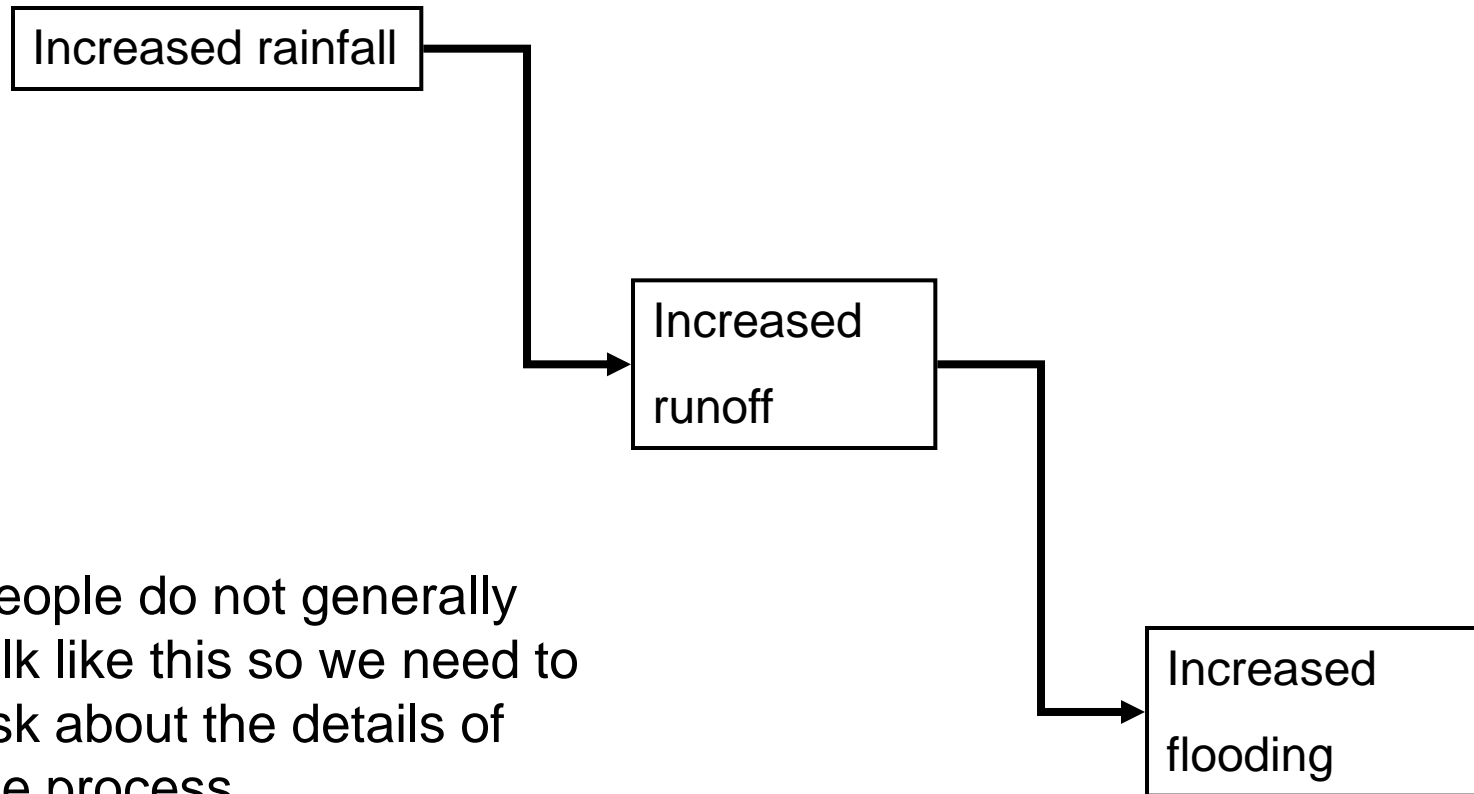
Increased  
rainfall



It is easy to represent  
this in AKT

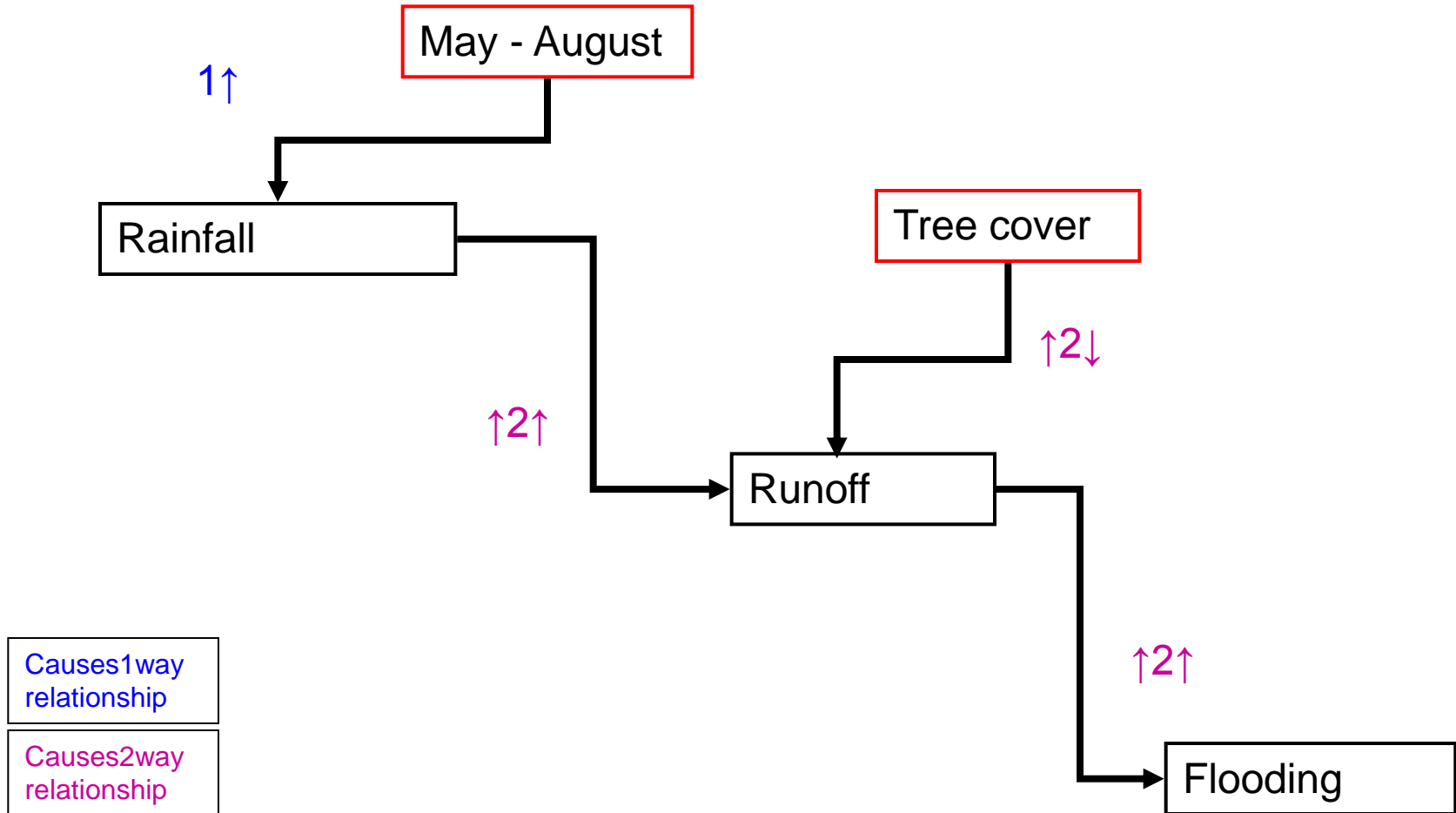
Increased  
flooding

# Practical interpretation of flooding knowledge



People do not generally talk like this so we need to ask about the details of the process

# Considerations



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# Representation of information

- Initially we create an hypothesis to test, e.g., from being told that heavy rainfall causes an increase in flooding, we can hypothesise that:
    - Heavy rainfall causes an increase in runoff (implicit knowledge)
    - An increase in runoff causes an increase in flooding if....
  - We can check this through triangulation or we can enter the original statement and modify it as our understanding improves
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# Transparency

- Statements that we enter into AKT can be represented as *implicit*, *observed* or *unknown* (using the DERIVATION feature)
    - You can also create your own derivations if necessary but these must be given a definition
  - All statements are associated with the person(s) who gave the information – this enables us to test the knowledge in future interviews with the informant
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# Other forms of implicit knowledge

- Gestured knowledge
  - Context specific comparisons
    - “Eucalyptus trees are tall” – compared with what?
  - Taste (‘difficult/impossible to articulate’ knowledge)
  - Observation
    - “You often see *this* in *this* type of landscape”
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