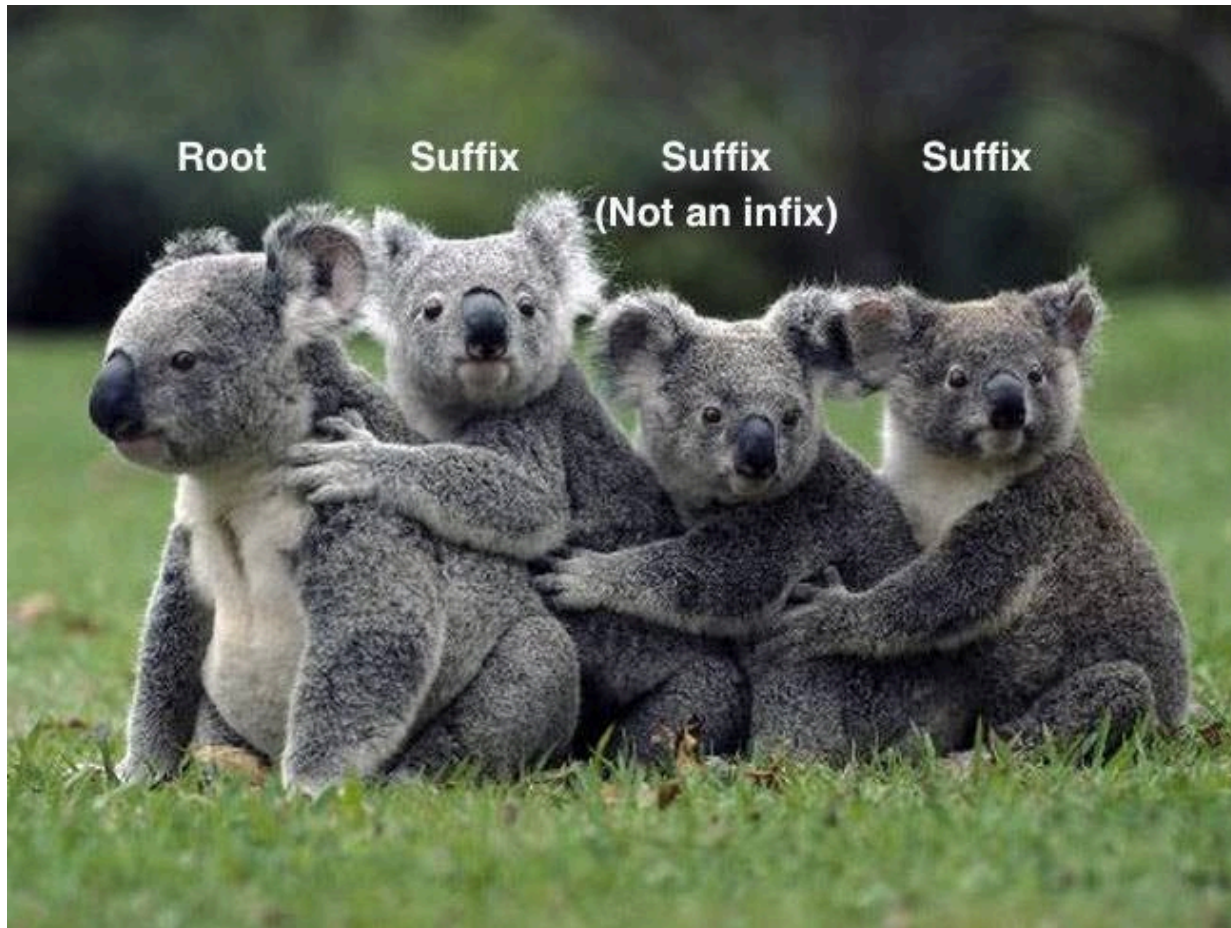




# Morphology II

Merlin Balkhash  
Department of Linguistics, Rutgers University  
2025/09/19 (updated: 2025-09-19)

# Previously on 201



# Previously on 201

- **root** (base)
- **affix** (morpheme that attaches to the base)
  - **prefix**
  - **suffix**
  - **infix** (rare in English)
  - **circumfix**
- **free vs. bound morpheme**
  - can appear as an independent word?
- **derivational morpheme**
  - change core meaning even part of speech
- **inflectional morpheme**
  - add some grammatical nuance
- **homophone**
  - same sound, different meanings
- **allomorph**
  - same meaning, different sounds
- **simple word vs. compound word**
  - one root = simple
  - more than one = compound

# Previously on 201

- **root** (base; **build**, **flower**)
- **affix** (morpheme that attaches to the base)
  - **prefix** (**un**-do)
  - **suffix** (walk-**ed**)
  - **infix** (rare in English)
  - **circumfix** (**em**-bold-**en**)
- **free vs. bound morpheme**
  - can appear as an independent word?
  - **blue**berry vs. **cran**berry
- **derivational morpheme** (piano --> pian-**ist**)
  - change core meaning even part of speech
- **inflectional morpheme** (jump --> jump-**ed**)
  - add some grammatical nuance
- **homophone** (fast-**er**, teach-**er**)
  - same sound, different meanings
- **allomorph** (**magic**, **magic**-ian)
  - same meaning, different sounds
- **simple word vs. compound word**
  - one root = simple (inter-**nation**-al)
  - more than one = compound (**sawhorse**)

# More Terms

## Compounding vs. Affixation

**compounding**: combining two or more roots into a single word

German: *Donaudampfschiffahrtsgesellschaftskapitän*

Roots: *Donau- dampf- schiff- fahrts- gesellschafts- kapitän*

Meaning: Danube- steam- ship- travel- company- captain  
'captain of the Danube Steamship Company'

Then the following word in Kazakh is **NOT** compounding:

Kazakh: *Qanaghatdandiralmaghandiqdaringizben*

Root: *Qanaghat-*

- Suffixes: *-dan -dir -al -ma -ghan -diq -dar -ring -iz*
  - Meaning: VBL CAUS CAP NEG ASP NML PL 2.Poss FRM
- 'Your (*pl, formal*) being not able to make (me) feel content'

# More Terms

## Reduplication

**full reduplication**: repeat **ALL** of a morpheme

- Indonesian plural
  - *orang* 'person' → *orang-orang* 'people'
- Chinese intensified adjective:
  - *kʰai<sup>55</sup>sin<sup>55</sup>* 'happy' → *kʰai<sup>55</sup>kʰai<sup>55</sup>sin<sup>55</sup>sin<sup>55</sup>* 'very happy'

**partial reduplication**: repeat **PART** of a morpheme

- Tagalog future
  - *bili* 'buy' → *bi-bili* 'will buy'
- Kazakh intensified adjective:
  - *tætti* 'sweet' → *tæp-tætti* 'very sweet'



# More Terms

## Alternation, Suppletion, Zero-derivation



**alternation:** changing one or more sounds within the morpheme (not the whole morpheme)

- allomorphy is technically a type of alternation, one in which there is no difference in meaning
- **g**oose / g**ee**se; **r**ing / **ra**ng / **ru**ng

**suppletion:** an **inflected** form is phonetically very different from other forms of the same word

- go / went; good / better / best

**zero-derivation:** change a word's part of speech **without adding anything** at all

- 'I ❤️ (heart) Linguistics!'

# A Little Practice

Identify the **morphological processes** involved in each of the following words.

**affixation** (prefixation, suffixation), **compounding**, **reduplication**, **alternation**, **suppletion**

- feed → fed
- leaf → leaves
- peace → peaceful
- foot, ball → football
- good → best
- chair, woman → chairwomen

back pack → backpacks



- like → like-liked
- go → underwent
- ox → oxen

# Order of Affixation

## unbelievable vs. renewable

- How many morphemes does each have?
- What is the root?
- Is there a prefix or suffix?



# Order of Affixation

## unbelievable vs. renewable

- How many morphemes does each have?
- What is the root?
- Is there a prefix or suffix?
- they're pretty similar: prefix-**ROOT**-suffix



# Order of Affixation

## unbelievable vs. renewable

- How many morphemes does each have?
- What is the root?
- Is there a prefix or suffix?
- they're pretty similar: prefix-**ROOT**-suffix
- **BUT BUT BUT**
  - Is it un + believable or unbeliev + able?
  - Is it renew + able or re + newable?



# Order of Affixation

## unbelievable vs. renewable

- How many morphemes does each have?
- What is the root?
- Is there a prefix or suffix?
- they're pretty similar: prefix-**ROOT**-suffix
- **BUT BUT BUT**
  - Is it un + believable or unbeliev + able?
  - Is it renew + able or re + newable?



**believ**-able vs. un-**believe**

re-**new** vs. **new**-able

# Order of Affixation

**ORDER OF AFFIXATION:** the order in which you add affixes to a root

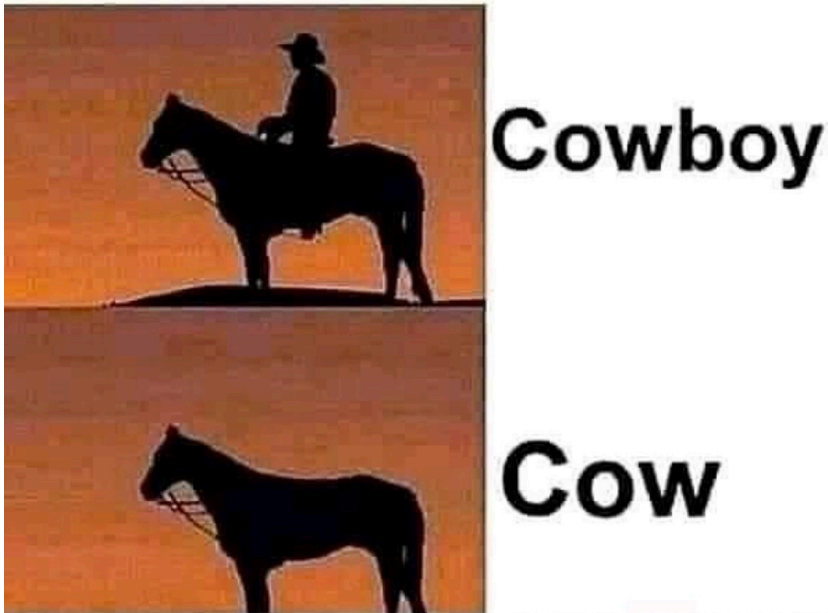
It does play a role in the morphology of a word:

- different words have different orders of affixation (un + believable / renew + able)
- order of affixation is part of our mental grammar
- to **test** the order: we **add** an affix and see if it makes a real word
- also, to **test** the order: we try to **understand** what the word means
  - If the definition involves some **smaller** combination of the root and an affix, it suggests that that affix is added first (un-[**believ**-able])
- Neither of these tests works 100% of the time, so you should try a combination of them

# Hierarchical Structure



badsciencejokes



- Order of affixation is somehow connected to the **meaning** of a word
- The fact that we can't add affixes in any old order suggests that words have a **hierarchical structure**. We can visualize this structure with a **tree diagram**.
- We start at the bottom with the root and build upward, adding affixes until we get to the full word at the top
- An alternative is **labeled bracketing**, which is more compact but perhaps less intuitive:

[Adj un [Adj [v believe ] able ] ]

[Adj [v re [Adj new ] ] able ]

# How to draw a morphological tree

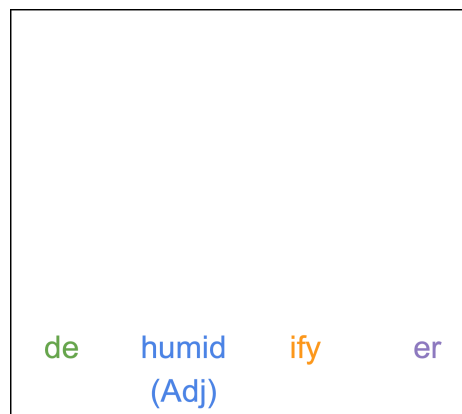
## De-humid-ify-er

1. Identify the word's morphemes and write them out separately in one row
2. Identify the root (or roots) and label its **part of speech**
3. Look at the morphemes immediately before and after the root. **Which one is added first?** Draw lines upward connecting them, and label the new word's part of speech
4. This new word becomes the base you'll keep building off of. **Repeat step 3** using this new base instead of the root, and continue until you have no unconnected morphemes left

# How to draw a morphological tree

## De-humid-ify-er

1. Identify the word's morphemes and write them out separately in one row
2. Identify the root (or roots) and label its **part of speech**
3. Look at the morphemes immediately before and after the root. **Which one is added first?** Draw lines upward connecting them, and label the new word's part of speech
4. This new word becomes the base you'll keep building off of. **Repeat step 3** using this new base instead of the root, and continue until you have no unconnected morphemes left



# How to draw a morphological tree

## De-humid-ify-er

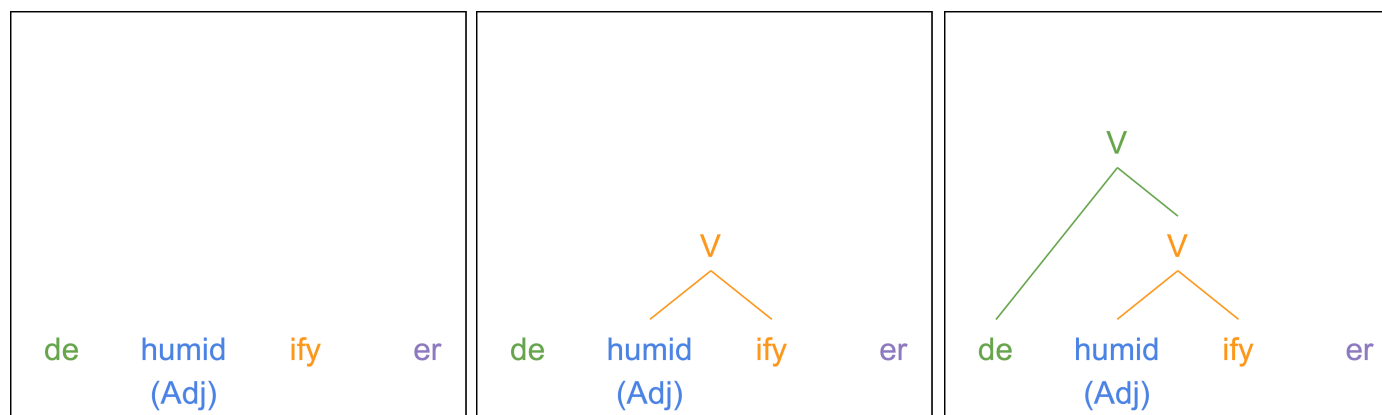
1. Identify the word's morphemes and write them out separately in one row
2. Identify the root (or roots) and label its **part of speech**
3. Look at the morphemes immediately before and after the root. **Which one is added first?** Draw lines upward connecting them, and label the new word's part of speech
4. This new word becomes the base you'll keep building off of. **Repeat step 3** using this new base instead of the root, and continue until you have no unconnected morphemes left



# How to draw a morphological tree

## De-humid-ify-er

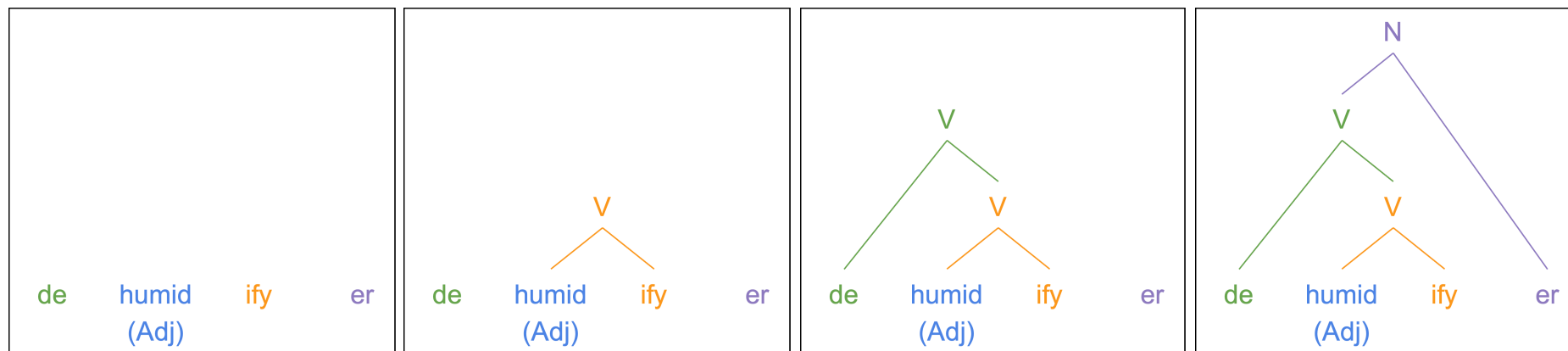
1. Identify the word's morphemes and write them out separately in one row
2. Identify the root (or roots) and label its **part of speech**
3. Look at the morphemes immediately before and after the root. **Which one is added first?** Draw lines upward connecting them, and label the new word's part of speech
4. This new word becomes the base you'll keep building off of. **Repeat step 3** using this new base instead of the root, and continue until you have no unconnected morphemes left



# How to draw a morphological tree

## De-humid-ify-er

1. Identify the word's morphemes and write them out separately in one row
2. Identify the root (or roots) and label its **part of speech**
3. Look at the morphemes immediately before and after the root. **Which one is added first?** Draw lines upward connecting them, and label the new word's part of speech
4. This new word becomes the base you'll keep building off of. **Repeat step 3** using this new base instead of the root, and continue until you have no unconnected morphemes left



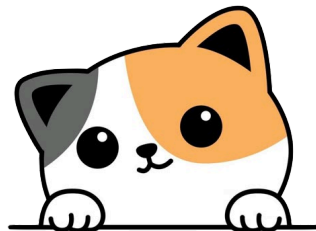
# Practice: Hierarchical structure

Draw a **tree** or give **bracket labeling** for the following words:

1. disappearance
2. silliness
3. unthinkable
4. overgeneralisation
5. internationalism

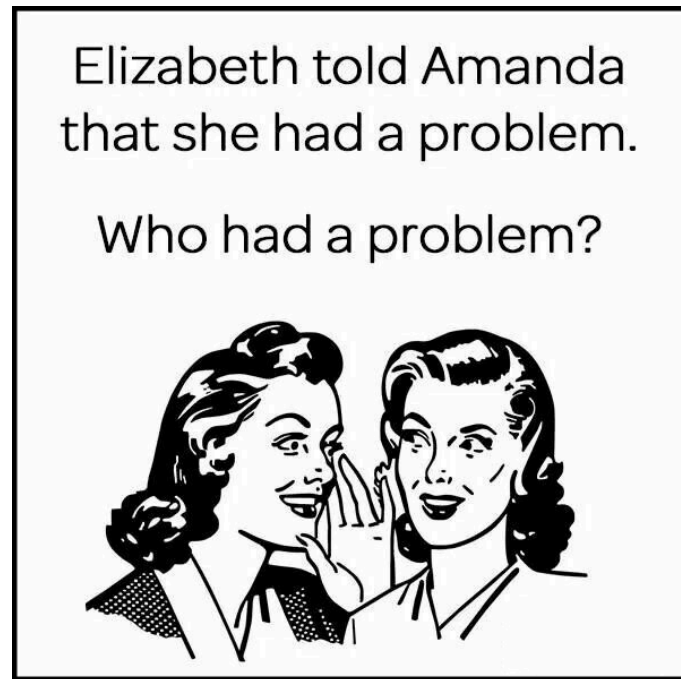
## HINTS

- find the root and move outward/upward
- mark the part of speech at every step
- If adding an affix makes a non-word, try adding another affix instead
- If adding an affix makes something that seems unrelated to the overall word's meaning, try adding a different affix instead



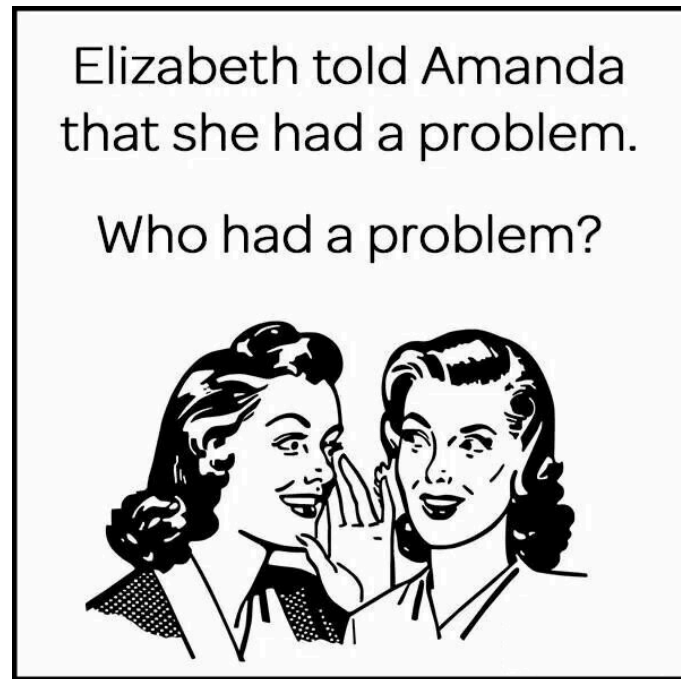
# Undoable

- What does **undoable** mean?
- *undo + able vs. un + doable*



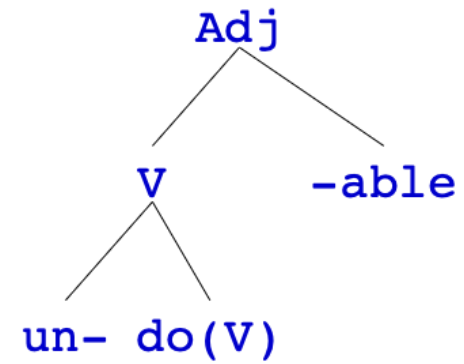
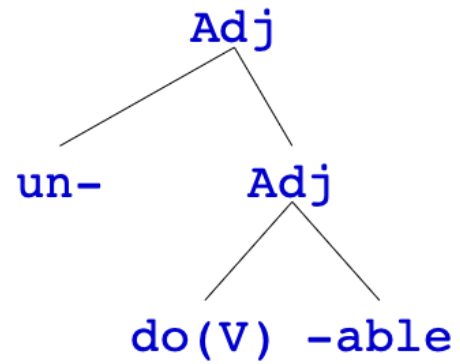
# Undoable

- What does **undoable** mean?
- *undo + able vs. un + doable*



- This is an example of a word with an **ambiguous structure**
- Depending on the structure you assign it, it has a **different meaning**
- both meanings are acceptable
- The **meaning** of words is directly affected by their morphological structure
- That's why **structure** is very important:
  - Without knowing the structure, we wouldn't know how to put together the meanings of a word's different morphemes to create the full word.

# Undoable



# Practice: Ambiguous Structures

Are the following words ambiguous? If yes, provide **labeled bracketings** for both readings and explain what each reaching means. If no, explain why not.

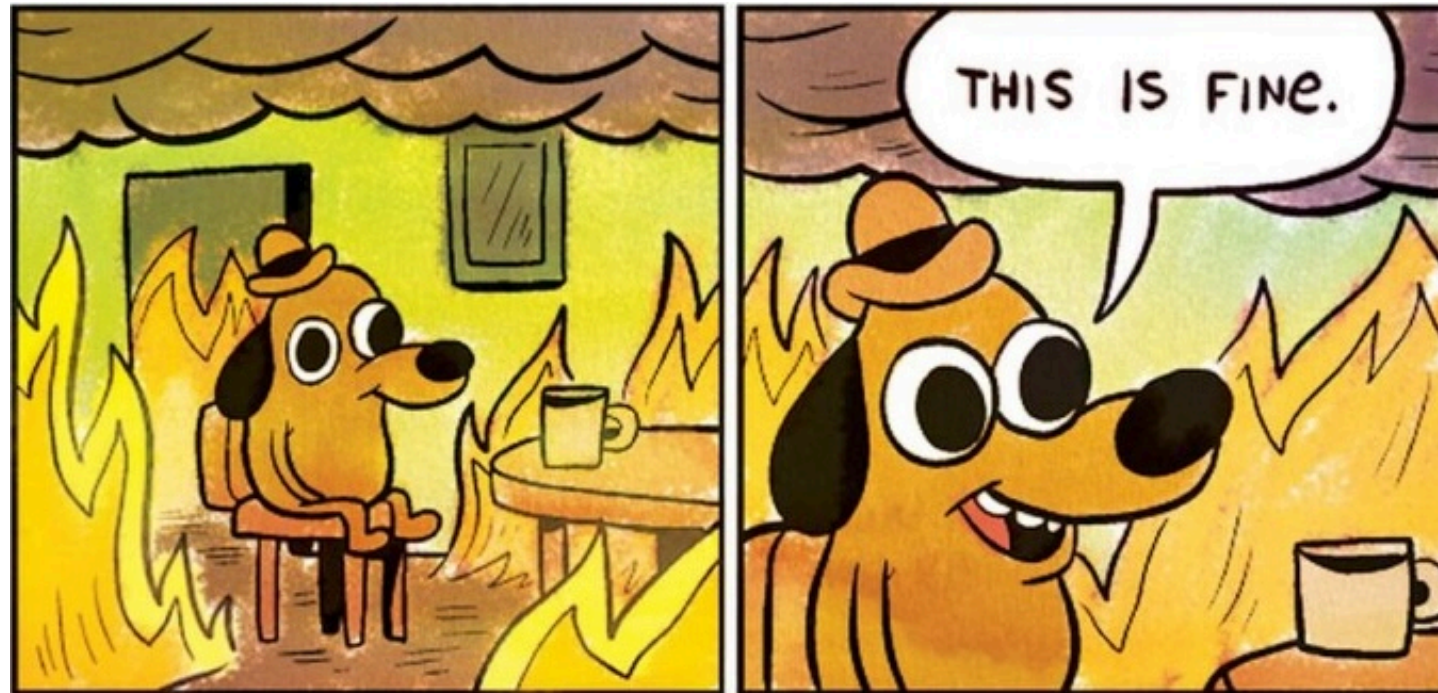
1. immeasurable
2. unwrappable
3. unbearable



**HOMEWORK I** is due this Sunday

**HOMEWORK II** will be published during this weekend, you have one week to submit

**Syntax reading 1** by next Wednesday



Slides created via the R package **xaringan**.