

Ideologies about mouthing and language background in ASL

Felicia Bisnath | NWA/50 (October 13th-15th 2022)

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Mouthing

- ▶ Movements of the mouth in sign languages that match the movements made when articulating spoken language words
- ▶ Mouthing in ASL is (primarily) associated with English, and with written language
- ▶ Ideologies about mouthing:
 - ▶ e.g. Not part of “real” ASL (Nadolske & Rosenstock 2007)



MOTHER
(New Zealand Sign Language)
<https://www.nzsl.nz/signs/4765>

Research questions

How do presence of mouthing, language background and language ideology predict recall of signs in ASL?

What ideological profiles about mouthing exist among deaf American signers of ASL?

How does language background cluster with language ideology?

Design

Ideology
Survey

Implicit ideology

Explicit ideology

Language
background

Design

Ideology Survey

Implicit ideology

Explicit ideology

Language
background

- ▶ Online survey
 - ▶ Questions in ASL and written English
 - ▶ Recall that mouthing is influenced by written English
- ▶ Measurement types: slider scale, multiple choice, multiple answer, open response

Implicit ideologies

Design

- ▶ Variation of a Matched Guise task
- ▶ Participants will see 3 videos signed by 3 different signers that vary in quality and quantity of mouthing (Ferrara & Fontana 2019)
- ▶ They will rate these videos for aesthetic properties of the signing and signer



Rate how much you agree that the signing in the video below is **pure**



[stimulus video]

Agree ————— Disagree

Implicit ideologies

Prompts



Rate how much you agree that the signing in the video below is **pure**



[stimulus video]

Properties of signing

pure
beautiful
smooth
looks educated

Properties of signer

looks like a leader in the deaf community
seems to be a strong deaf person
looks hearing
looks smart (Hill 2012)

Agree  Disagree

Implicit ideologies

Varying quality and quantity of mouthing

► Genre:

- didactic context giving information about current events
e.g. COVID, weather

What's another potential context?

Implicit ideologies

Varying quality and quantity of mouthing

► Genre:

- didactic context giving information about current events e.g. COVID, weather

What's another potential context?

► At least 3 examples of each mouthing predictor in text

- Highlighted = predictor typically occurs with mouthing
- Not highlighted = predictor does not typically occur with mouthing

Mouthing predictor	No mouthing	Some mouthing	Too much mouthing
Fingerspelling	✗	✓	✓
Nouns	✗	✓	✓
Emphasis	✗	✓	✓
Repetition	✗	✓	✓
Low frequency words	✗	✓	✓
Contrastive mouthing	✗	✗	✓
Directional verbs	✗	✗	✓
Aspect verbs	✗	✗	✓
Classifiers	✗	✗	✓
Prepositions	✗	✓	✓
Conjunctions	✗	✓	✓
Plain verbs	✗	✓	✓
Modal verbs	✗	✓	✓
Adjectives	✗	✓	✓
Adverbs	✗	✓	✓

Explicit ideologies

No.	Category	Question	Response
1	Mouthing in general: association with ASL and English, and language	Mouthing is part of ASL / associated with English	Scale (Disagree to Agree)
2		Mouthing should not be part of ASL	
3		Mouthing makes ASL less of a sign language	
4		Some signers mouth too much / do not mouth enough in ASL?	
5	Production of mouthing by hearing and deaf people	How much do deaf / hearing signers mouth in ASL?	Scale (Not at all to All the time)
6		Mouthing is not used when deaf people use ASL with eachother	Scale (Disagree to Agree)
7		Mouthing is only used when deaf people have to communicate with hearing people	
8	Comprehension	Mouthing helps me to understand ASL	
9		Mouthing helps me to be understood in ASL	Scale (Disagree to Agree)
10		Mouthing in ASL is distracting	
11	Production of mouthing by self	How much do you use mouthing?	Scale (Not at all to All the time)

Language background

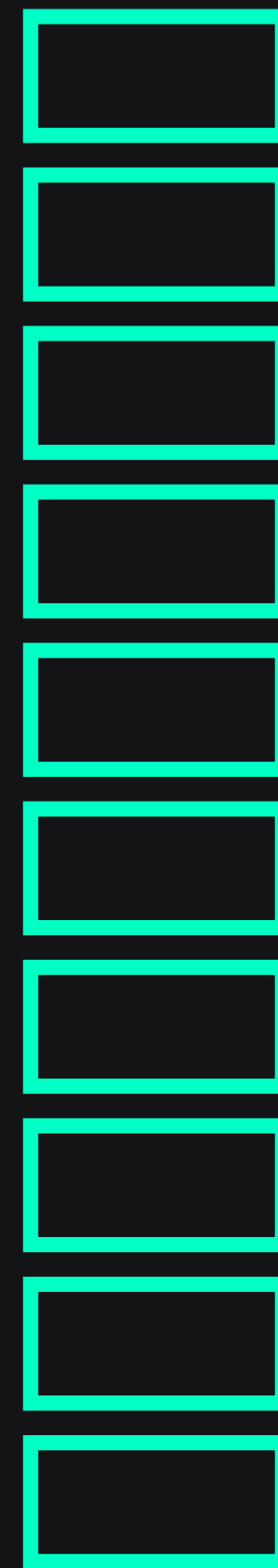
- ▶ Questions will target:
 - ▶ Aspects of identity e.g. audiological status, age, gender, ethnicity
 - ▶ Location e.g. past, present, length of time
 - ▶ Education
 - ▶ Language background e.g. age-of-acquisition, exposure to and interaction in ASL, other signing varieties and/or English

Analysis: RQ1, what are the ideology profiles?

Explicit ideology

► Explicit ideology

- Mouthing in general: association with ASL and English and language
- Production of mouthing by hearing and deaf people
- Comprehension
- Production of mouthing by self



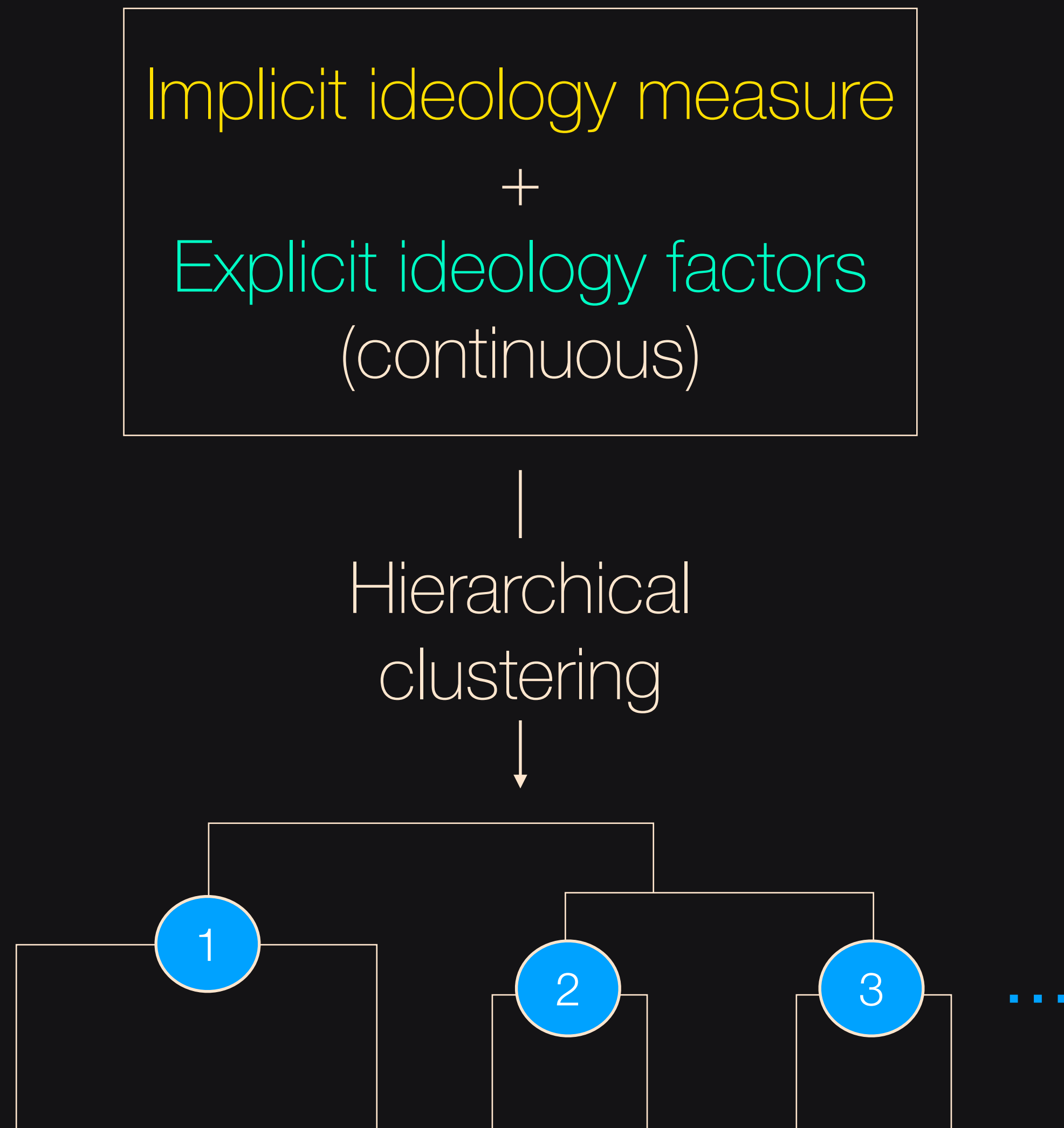
— Exploratory
Factor
Analysis —→



Each participant will get a score for each factor

Analysis: RQ1, what are the ideology profiles?

Combining implicit and explicit ideology

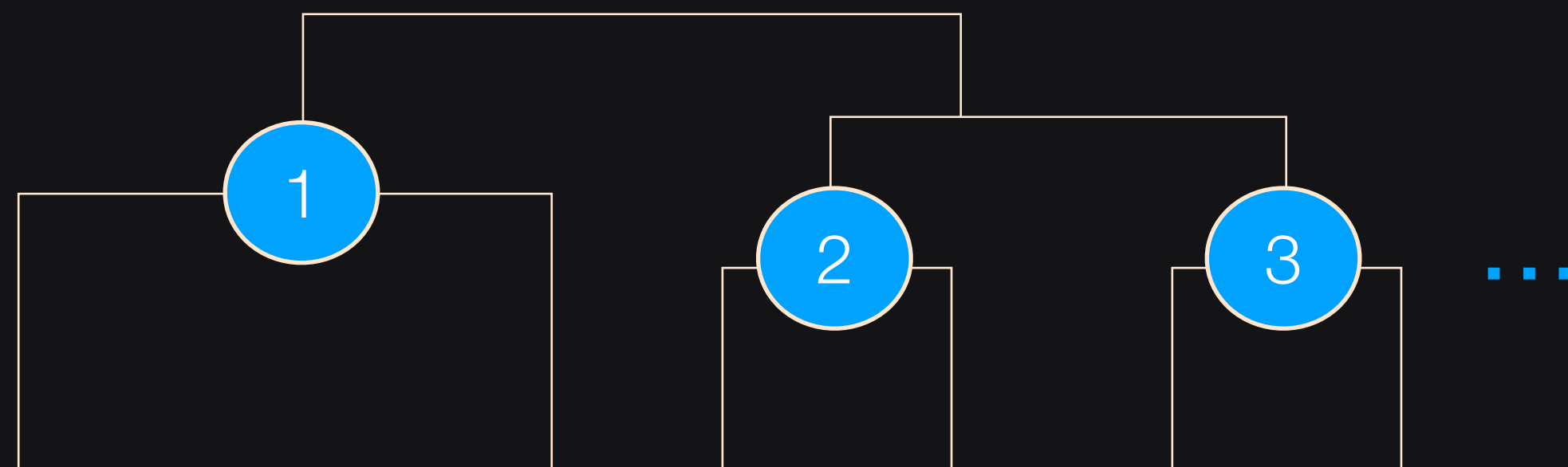


Analysis: RQ1, what are the ideology profiles?

Combining implicit and explicit ideology

Implicit ideology measure
+
Explicit ideology factors
(continuous)

Hierarchical
clustering



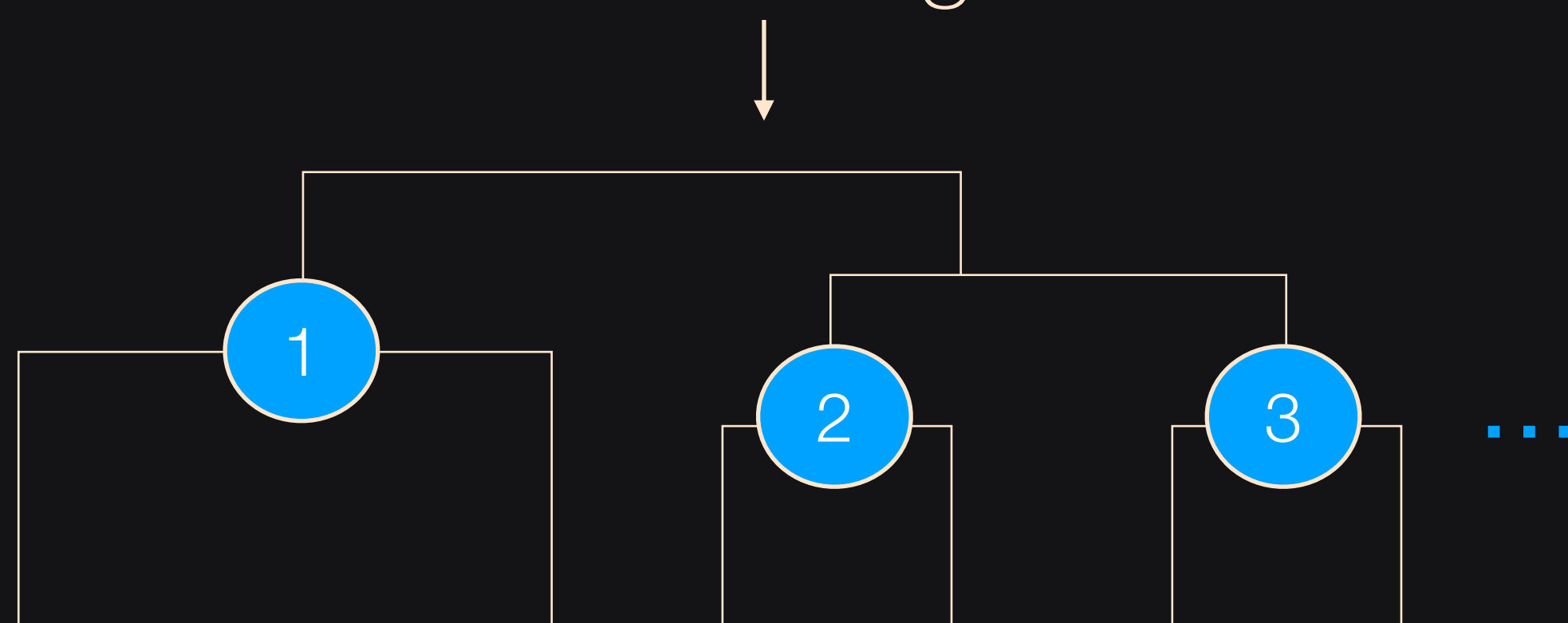
Profile type	Implicit	Explicit
I	Positive	Positive
II	Positive	Negative
III	Positive	Neutral
IV	Negative	Positive
...		

Analysis: RQ1, what are the ideology profiles?

Combining implicit and explicit ideology

Implicit ideology measure
+
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Hierarchical
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Profile type	Implicit	Explicit
I	Positive	Positive
II	Positive	Negative
III	Positive	Neutral
IV	Negative	Positive
...		

Positive, neutral and negative are for convenience. What are other ways of thinking of these profiles?

Profile type	Implicit	Explicit			
		Factor 1	Factor 2	Factor 3	Factor 4
I					
II					
III					
...					

Analysis: RQ2, how do background and ideology cluster?

RQ2, How does language background profile relate to ideology profile?

1

Raw ideology +
language background
data

Analysis: RQ2, how do background and ideology cluster?

RQ2, How does language background profile relate to ideology profile?

1

Raw ideology +
language background
data

2

Ideology data after factor
analysis + language
background data

Analysis: RQ2, how do background and ideology cluster?

RQ2, How does language background profile relate to ideology profile?

1

Raw ideology +
language background
data

2

Ideology data after factor
analysis + language
background data

3

Ideology type + language
background data

Analysis: RQ2, how do background and ideology cluster?

RQ2, How does language background profile relate to ideology profile?

1

Raw ideology +
language background
data

2

Ideology data after factor
analysis + language
background data

3

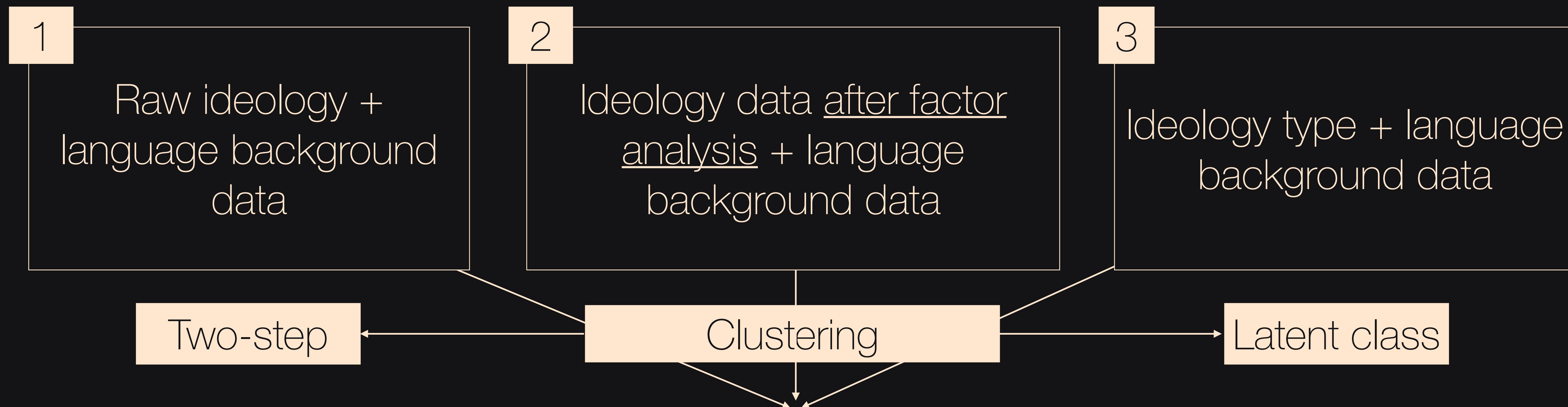
Ideology type + language
background data

Clustering

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graph TD; 1[1: Raw ideology + language background data] --> Clustering[Clustering]; 2[2: Ideology data after factor analysis + language background data] --> Clustering; 3[3: Ideology type + language background data] --> Clustering; Clustering --> Output[ ];
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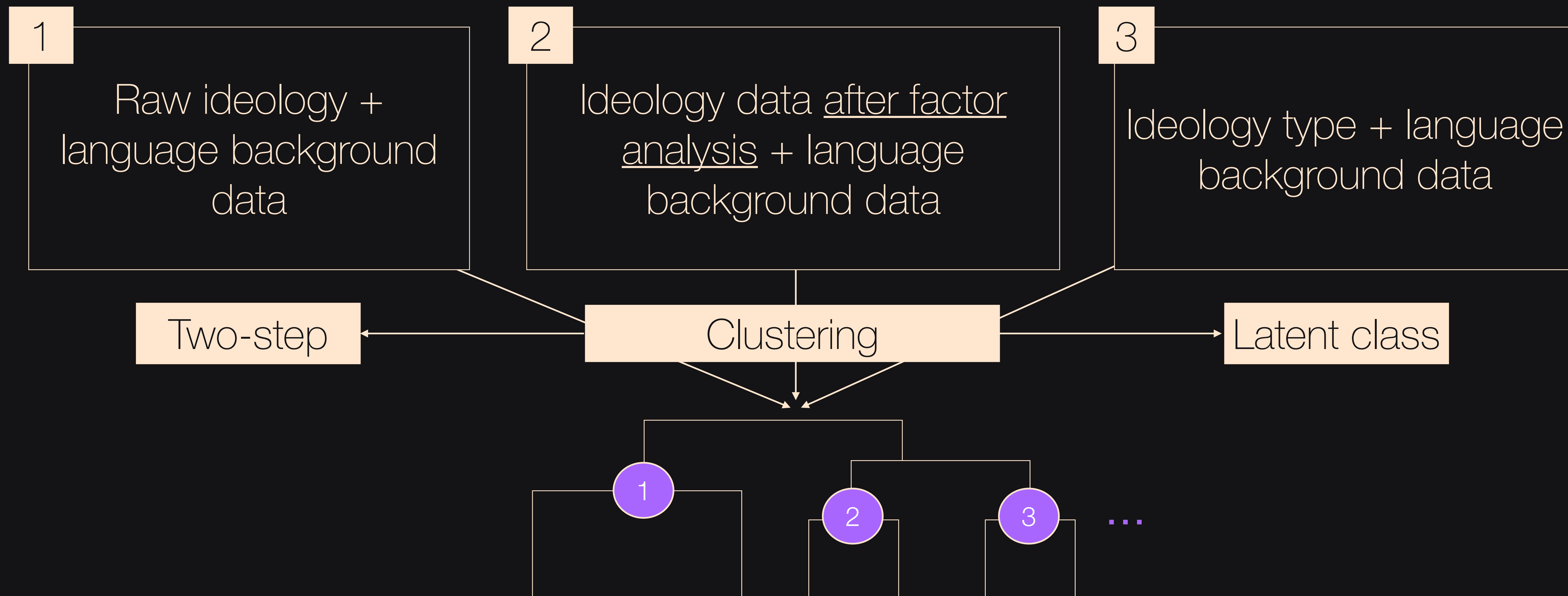
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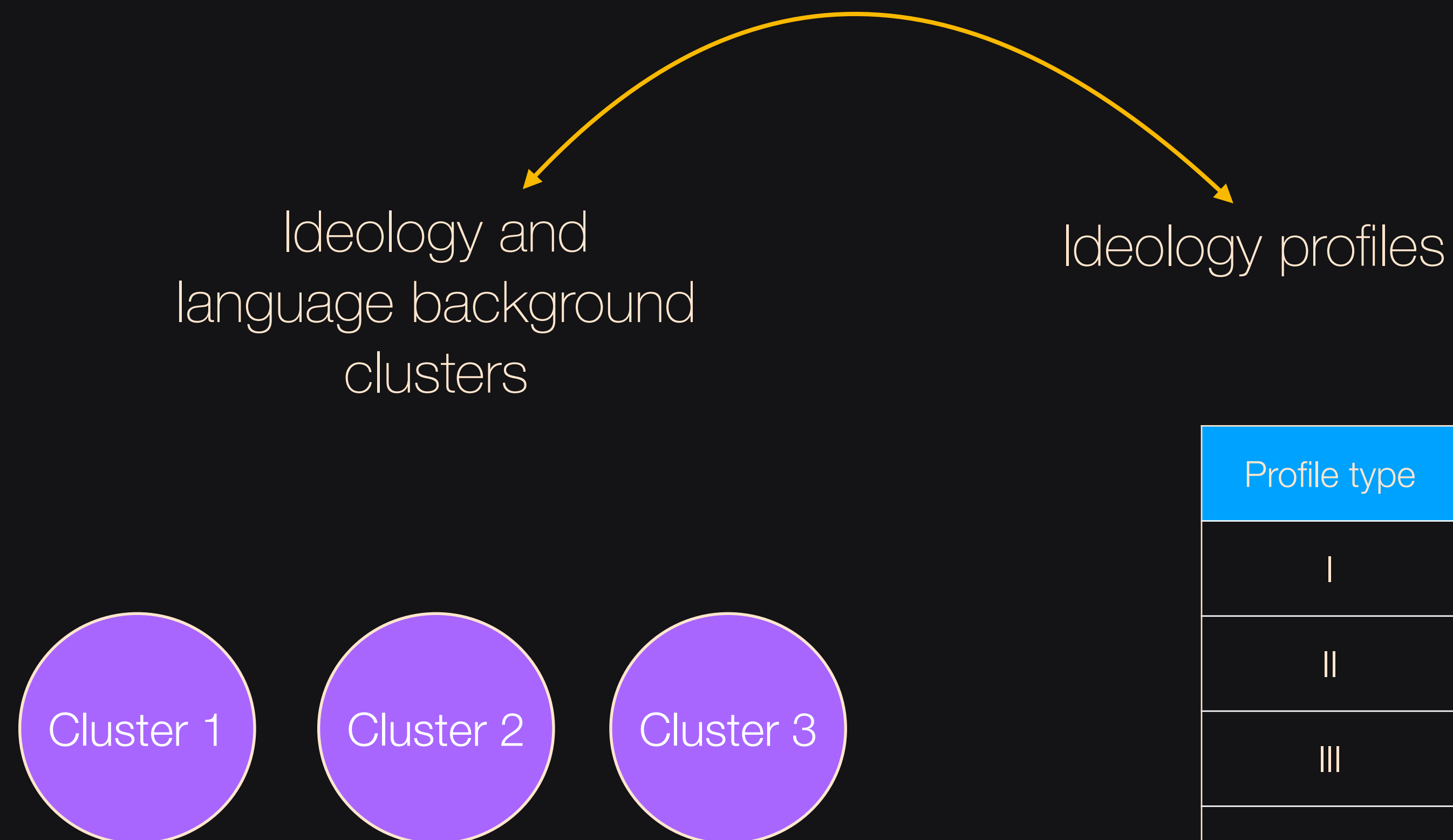
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Analysis: RQ2, how do background and ideology cluster?

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Profile type	Implicit	Explicit
I	Positive	Positive
II	Positive	Negative
III	Positive	Neutral
IV	Negative	Positive
...		

Analysis: RQ2, how do background and ideology cluster?

RQ2, How does language background profile relate to ideology profile?

Language background	Ideology Options
Raw (categorical, continuous)	Raw (continuous)
	After Exploratory Factor Analysis (continuous)
	Ideology type (categorical)

How should ideology profile and language background profile be connected?

Which input ideology data should be used?
Should I use what I find in the previous analysis or “start over”?

Questions

- ▶ **What issues can I expect trying to connect ideology profile and language background profile** as opposed to, for example, connecting ideology factors to aspects of language background e.g. audiological status, age etc.?
- ▶ **How to connect ideology profile to background profile?**
 1. Identify ideology and background profiles separately → replace raw data with profile categorisation → cluster
 2. Identify ideology profiles based on Exploratory Factor Analysis → remove raw ideology data and replace with ideology profile → cluster with raw language background data
 3. Cluster raw ideology and background data
- ▶ **What's another potential didactic context for the Matched Guise modification?**

Current options: COVID, weather