Package 'CPNCoverageAnalysis'

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Title Conceptual Properties Norming Studies as Parameter Estimation

Version 1.1.0

Description
Implementation of conceptual properties norming studies, including estimates of CPNs parameters with their corresponding variances and estimates for the sampling process, and a sampling property function based on a modified empirical distribution from the original data.

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Encoding UTF-8

LazyData true

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Depends R (>= 2.10)

NeedsCompilation no

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Contents

data_paper *Example of the dataset used in the paper.*

Description

A real dataset from spanish speakers, translated using automatic algorithms

Usage

```
data_paper
```

Format

A data frame with 4364 rows and 3 variables:

ID Id of the people

Concept Concept being described by the person ID

Property A property mentioned for the corresponding concept for the person ID

data_test *Test example dataset.*

Description

A toy dataset containing the description of ten people, over 3 concept, with multiple properties.

Usage

```
data_test
```

Format

A data frame with 65 rows and 3 variables:

ID Id of the people

Concept Concept being described by the person ID

Property A property mentioned for the corresponding concept for the person ID

estimate_participant *Estimate the number of people needed and expected number of unique properties for a determined coverage based on the estimated norms*

Description

Estimate the number of people needed and expected number of unique properties for a determined coverage based on the estimated norms

Usage

```
estimate_participant(est_norms, target_cover)
```

Arguments

est_norms	a data frame with the estimated norms (generated by generateNorms)
target_cover	float between 0 and 1, corresponding to coverage (the fraction of the total incidence probabilities of the reported properties that are in the reference sample)

Value

a vector with the extra number of participant to achieve the especific coverage, and the estimate of the number of unique properties listed by the new amount of suggested people

Examples

```
estimated_norms=generate_norms(data_test)
estimate_participant(estimated_norms,0.8)
```

generate_norms *Calculate all the norms from a Conceptual properties*

Description

Calculate all the norms from a Conceptual properties

Usage

```
generate_norms(orig_data)
```

Arguments

orig_data	a data frame of size nx3 (id, concept, property)

Value

a data frame with all the estimations

Examples

```
generate_norms(data_test)
```

`property_simulator` *Simulate properties based on the empricial distribution of the original data and new words with frequency one*

Description

Simulate properties based on the empricial distribution of the original data and new words with frequency one

Usage

```
property_simulator(orig_data, new_words, number_subjects)
```

Arguments

`orig_data`	a data frame of size nx3 (id, concept, property). The empriical distribution is generated from this data
`new_words`	integer greater than 0, corresponding to the number of words with frequency one that should be added to the empirical distribution
`number_subjects`	number of subjects to be sampled. Each subject with generates new properties

Value

a vector with the extra number of participant to achieve the especific coverage, and the estimate of the number of unique properties listed by the new amount of suggested people

Examples

```
orig_data=data_paper[data_paper[,2]=="Decision",]
property_simulator(orig_data, 84, 15)
```

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