

Korean FrameNet

The current development

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Korean FrameNet: status

- Translated annotation
 - Manual translation from a translation company + expert correction in Financial domain)
 - Need to transform FN 1.5 to 1.7 version
 - Some Frames was updated.
 - From English FrameNet annotation: 4,025 sentences
 - From Japanese FrameNet annotation: 1,482 sentences
 - Translated LU: 8,220
 - # of Frames: 722

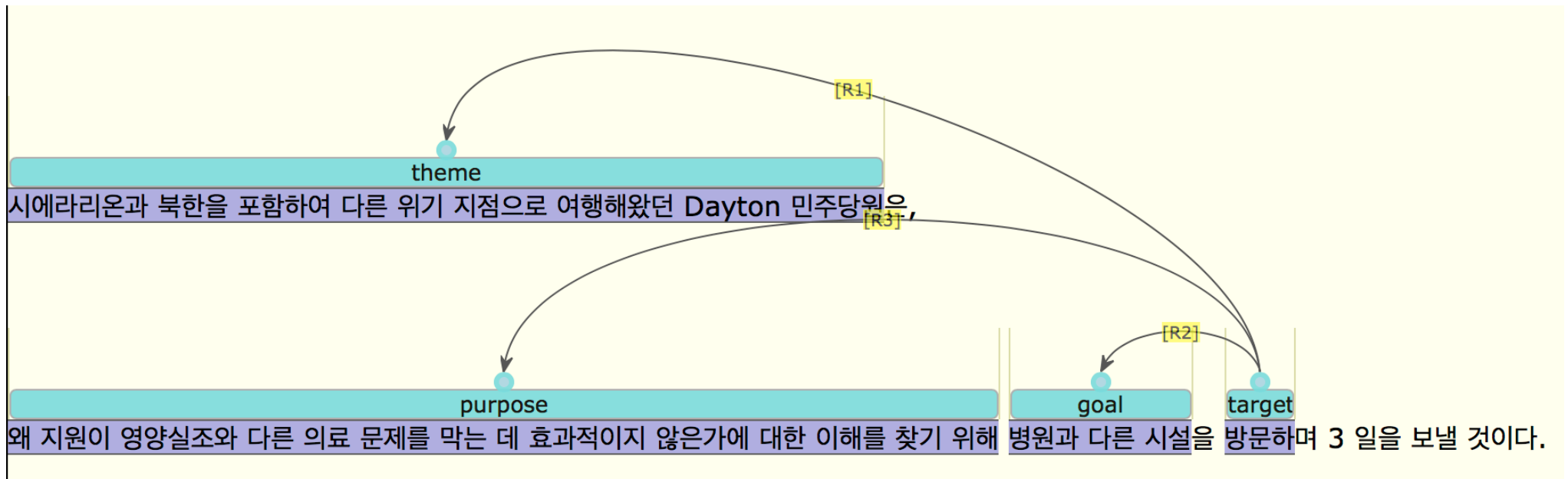
LU Coverage (for Korean Basic Vocabulary)

- Translated_LU / Total_Basic_Vocabulary in Korean:
 - $6,721 / 50,385 = 0.13$
 - Level 1 Basic_Voc: $1,908 / 5,339 = 0.36$
 - Level 2 Basic_Voc: $1,822 / 10,397 = 0.18$
 - Level 3 Basic_Voc: $1,725 / 16,123 = 0.11$
 - Level 4 Basic_Voc: $759 / 10,637 = 0.07$
 - Level 5 Basic_Voc: $507 / 7,889 = 0.064$

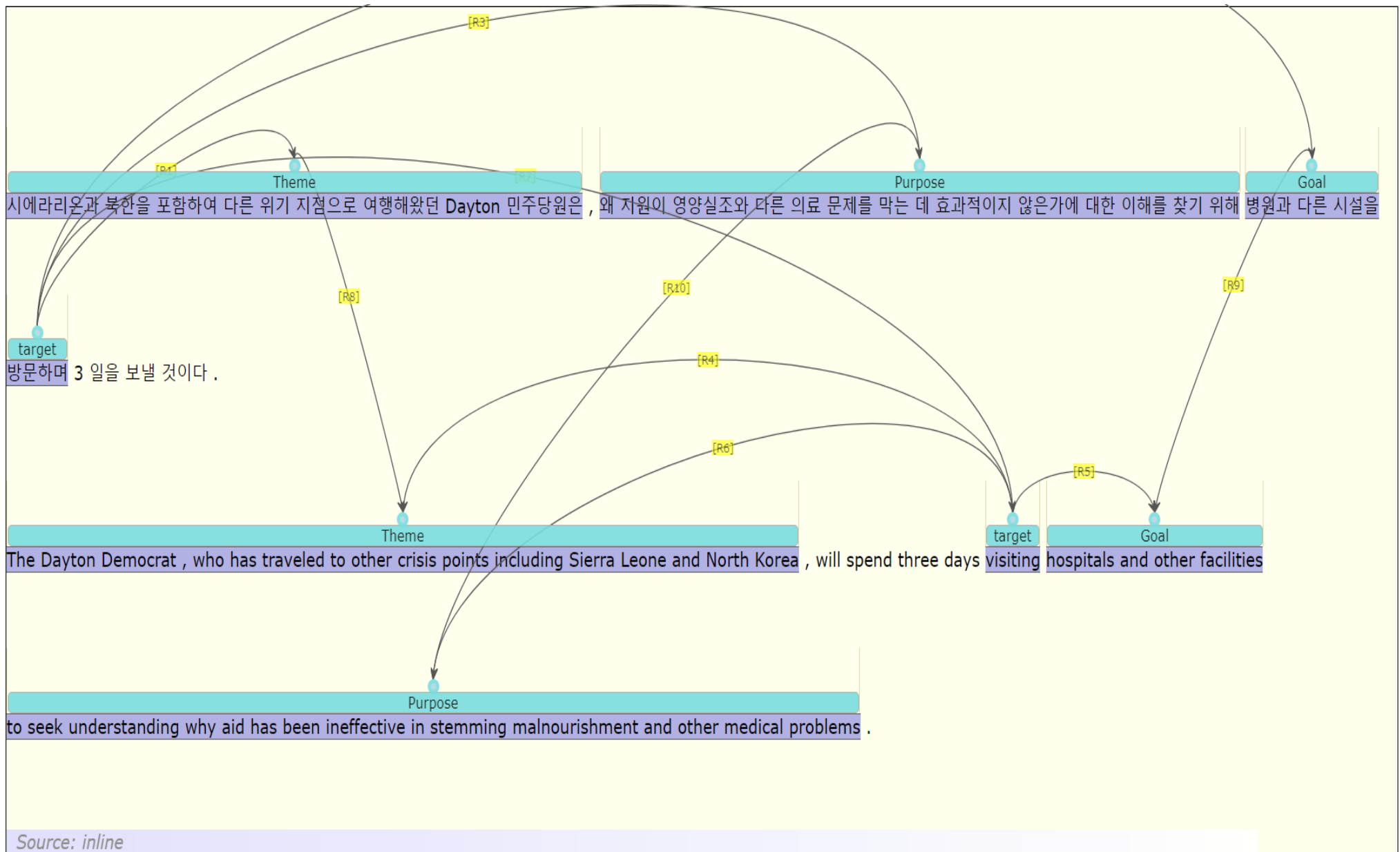
Example: LU ‘방문하’ [bangmoonha]

- frame: Arriving
- en_lu: ['visit',]
- pos: VV
- valence pattern:
 - '[theme/JX] + [purpose] + [goal/JKO] + 방문하',
 - '[goal/JKO] + 방문하 + [theme/JKC]',
 - '[time/JKB] + [theme/JX] + [goal/JKO] + 방문하',
 - '[time/JKB] + [goal/JKO] + 방문하',
 - '[time] + [theme/JKS] + [goal/JKO] + 방문하',
 - '[theme/JX] + [goal/JKO] + 방문하',
 - '[time] + [theme/JKS] + [goal] + 방문하'

Example: Arriving 방문.v



KO.EN alignment



Undergoing Development

- Goal:
 - To Annotate the Korean Wikipedia (about 300,000 articles)

Ko.Wikipedia annotation

- Tasks
 - Importing KAIST Korean Word Net (called “CoreNet”)
 - CoreNet’s vocabulary > Korean basic vocabulary (> 60,000)
 - Mapping synsets to PWN
 - Utilizing PWN Mapping table to FrameNet
 - MapNet (about 5,000 mapping: FN to WN)
 - Boosting the translated annotation patterns to Ko.Wikipedia
 - Machine-aided annotation
 - Human annotator’s correction

WN vs. FrameNet vs. CoreNet

- Synset (WordNet)
 - eat.1.v (take in solid food)
 - eat.2.v (eat a meal; take a meal)
 - eat.3.v (take in food; used of animals only)
- Frame of FrameNet
 - Ingestion (An Ingestor consumes food or drink, ...)
- Sense (CoreNet)
 - 먹다.iv.Fermentation
 - 먹다.iv.absorption
 - 먹다.tv.eating
 - ...

CoreNetApi.jar

CoreNet

- 80,171 synsets
 - high 3,000 hierarchy level mapped to PWN synsets
 - # synsets of nouns: 73,497 (LU: 41,226)
 - # synsets of verbs: 5,236 (LU: 1,756)
 - # synsets of adverb: 1,984 (LU: 804)

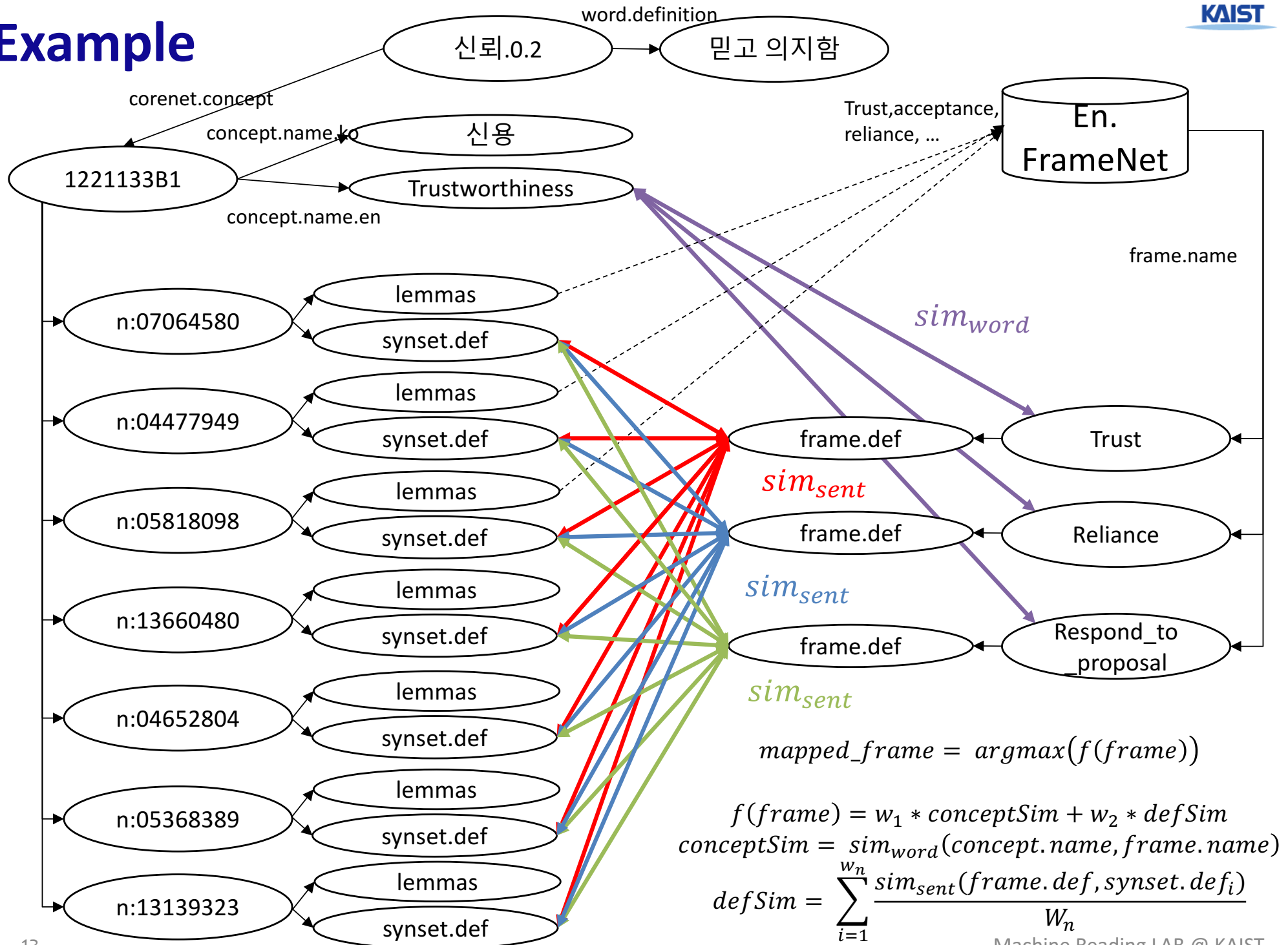
신용.n.trustworthiness.2.0 to FrameNet

frame	FN.Definition
Certainty	The frame concens a Cognizer's certainty about the correctness of beliefs or expectations.
Trust	A Cognizer thinks that the Information given by a particular Source is correct.
Reliance	A Protagonist needs a Means action performed for their Benefit.
Respond_to_proposal	A Speaker addresses a Proposal made by an Interlocutor, either agreeing to it or rejecting it.
Evidence	The Support, a phenomenon or fact, lends support to a claim or proposed course of action, the Proposition, where the Domain_of_relevance my also expressed.

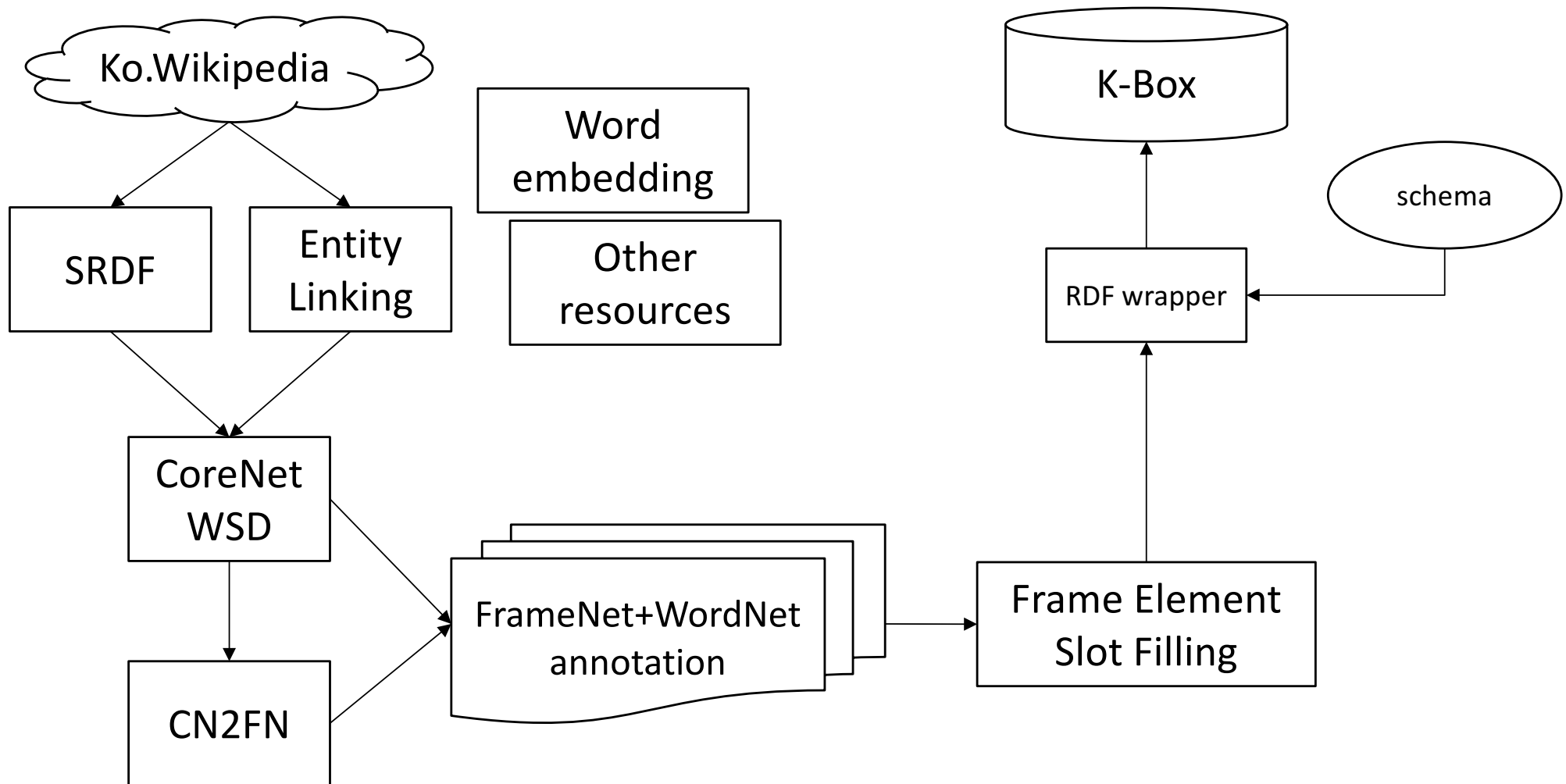
Synset	Lemmas	Wn.Definition
creditworthiness.n.01	creditworthiness	trustworthiness with money as based a person's credit history; a general qualification for borrowing
trust.n.03	trust, trustingness, trustfulness	the trait of believing in the honesty and reliability of others
reliance.n.01	reliance, trust	certainty based on past experience
credence.n.01	credence, acceptance	the mental attitude that something is believable and should be accepted as true
confidence.n.02	confidence	a feeling of trust (in some or something)
confidence.n.04	confidence, trust	a trustful relationship
confidence.n.03	confidence	a state of confident hopefulness that events will be favorable

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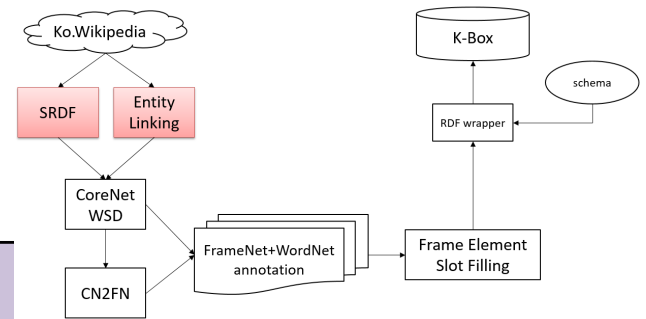
Example



Semantics annotation for Wikipedia as KB

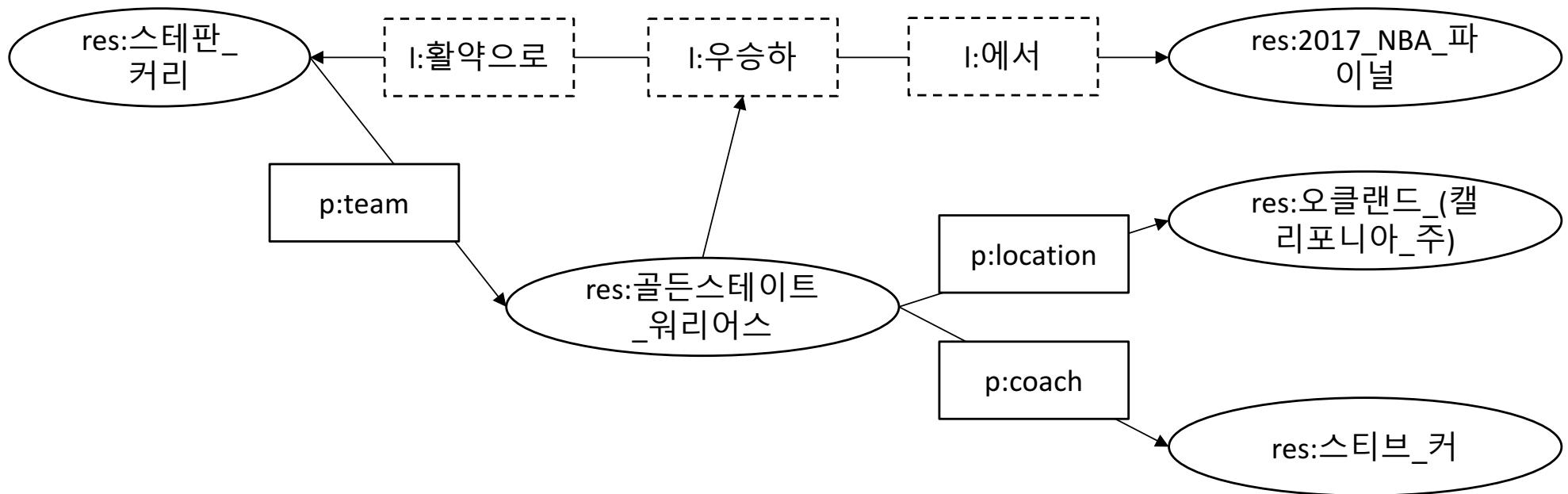


+ Surface Graph, Entity Linking

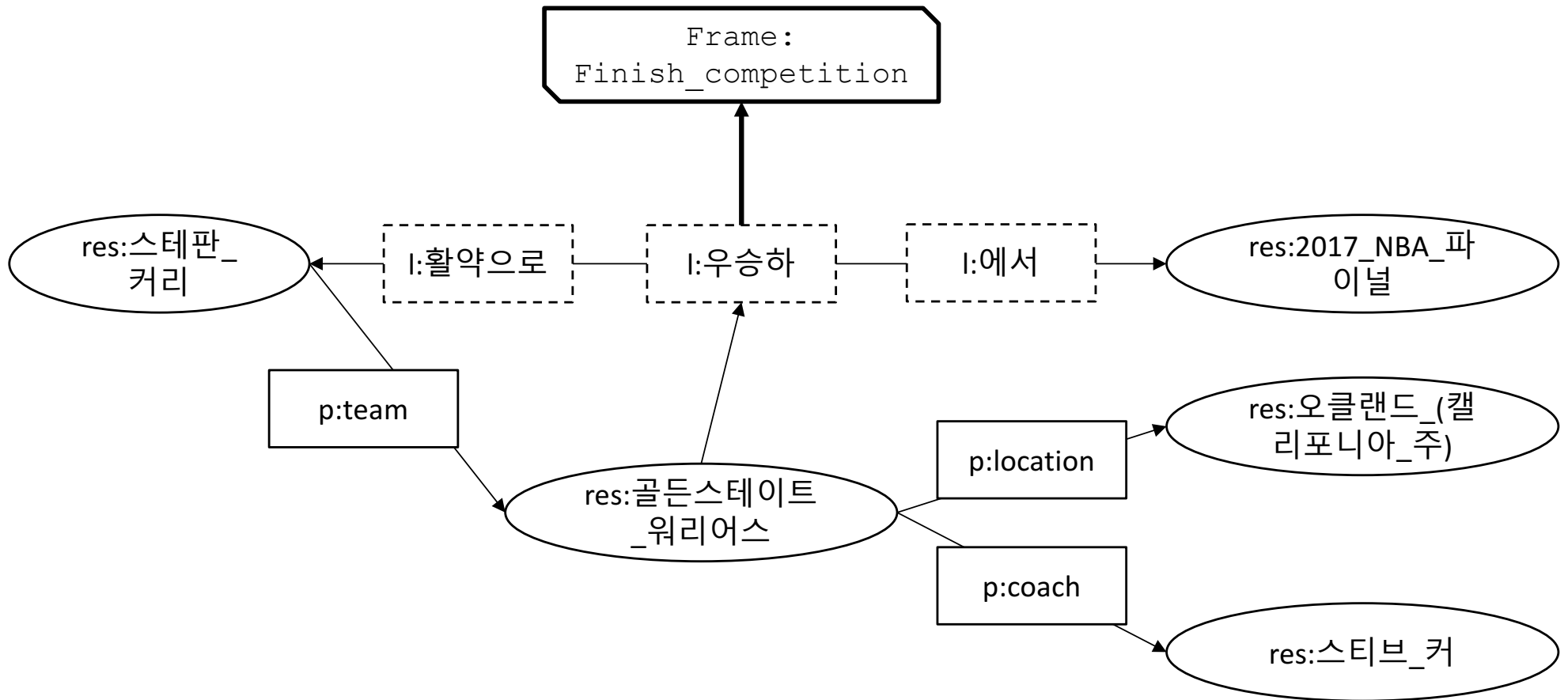
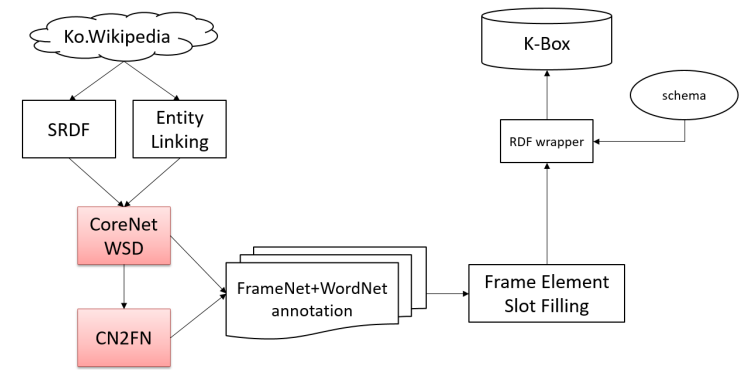


Natural Language

GS가 스테판 커리의 활약으로 2016-2017 파이널에서 우승하였다.



+ semantics (Frame Semantics)



+ semantics (Frame Element Slot Filling)

