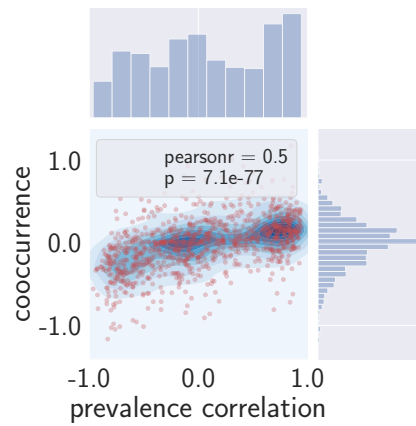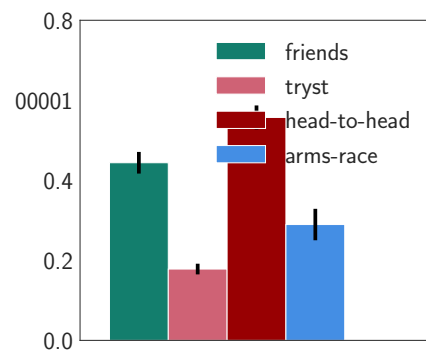# Idea relations

February 18, 2021

1 Overall distributions

(a) Joint distribution between PMI and prevalence correlation.

(b) Strength of the top 25 pairs in each category.

2 Top relation plots

(a) Friendship (#1).　(b) Friendship (#2).　(c) Friendship (#3).　(d) Friendship (#4).

(e) Head-to-head (#1).　(f) Head-to-head (#2).　(g) Head-to-head (#3).　(h) Head-to-head (#4).

(i) Arms-race (#1).　(j) Arms-race (#2).　(k) Arms-race (#3).　(l) Arms-race (#4).

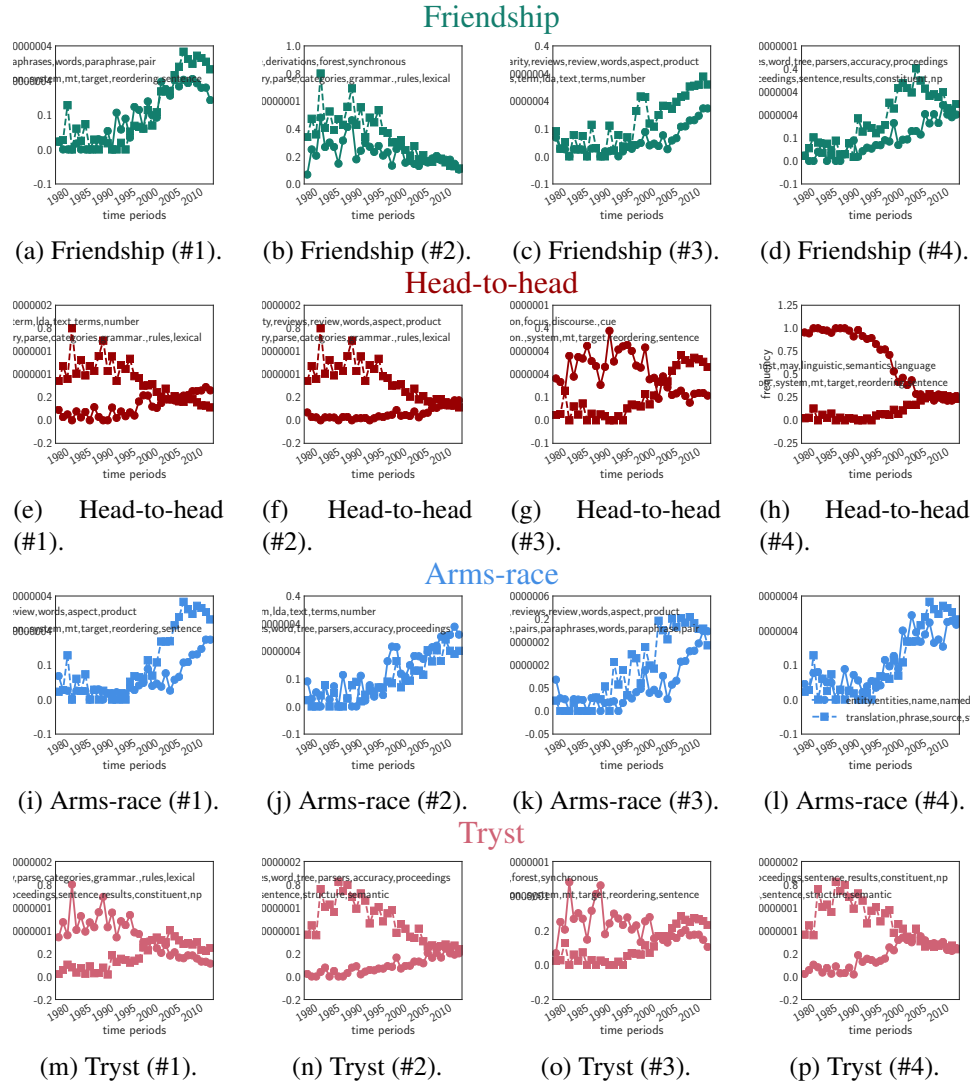(m) Tryst (#1).　(n) Tryst (#2).　(o) Tryst (#3).　(p) Tryst (#4).

Figure 2: Top four figures in each category, more careful investigation is required to interpret these results. Also explore further down the list (e.g., top 50) to get a better understanding.

3 Relation tables

Table 1: Relation between ideas. This table shows top pairs. In the table/ directory, there is another file with top 50 pairs, which is worth further investigation.

combined	pmi	correlation	first	second
			friends	
0.998	1.174	0.850	alignment, word, alignments, aligned, sentence, pairs, paraphrases, words, paraphrase, pair	translation, phrase, source, statistical machine, translation., system, mt, target, reordering, sentence
0.601	0.765	0.786	rules, rule, rules., derivation, rules, , set, figure, derivations, forest, synchronous	grammar, parsing, parser, grammars, category, parse, categories, grammar., rules, lexical
0.585	0.675	0.867	sentiment, opinion, positive, negative, polarity, reviews, review, words, aspect, product	topic, document, documents, topics, words, term, lda, text, terms, number
0.516	0.757	0.681	dependency, parsing, parser, head, dependencies, word, tree, parsers, accuracy, proceedings	parsing, parser, syntactic, parse, sentences, proceedings, sentence, results, constituent, np
0.501	0.741	0.676	object, attribute, attributes, objects, visual, image, set, images, descriptions, properties	user, dialogue, system, utterance, action, plan, utterances, actions, task, agent
			head-to-head	
0.969	-1.166	-0.831	topic, document, documents, topics, words, term, lda, text, terms, number	grammar, parsing, parser, grammars, category, parse, categories, grammar., rules, lexical
0.799	-1.047	-0.763	sentiment, opinion, positive, negative, polarity, reviews, review, words, aspect, product	grammar, parsing, parser, grammars, category, parse, categories, grammar., rules, lexical
0.764	-0.982	-0.778	discourse, text, structure, relations, two, coherence, relation, focus, discourse., cue	translation, phrase, source, statistical machine, translation., system, mt, target, reordering, sentence
0.735	-0.798	-0.921	representation, semantic, interpretation, sentence, one, must, may, linguistic, semantics, language	translation, phrase, source, statistical machine, translation., system, mt, target, reordering, sentence
0.731	-1.015	-0.720	user, dialogue, system, utterance, action, plan, utterances, actions, task, agent	dependency, parsing, parser, head, dependencies, word, tree, parsers, accuracy, proceedings
			arms-race	
-0.963	-1.157	0.832	sentiment, opinion, positive, negative, polarity, reviews, review, words, aspect, product	translation, phrase, source, statistical machine, translation., system, mt, target, reordering, sentence
-0.606	-0.720	0.841	topic, document, documents, topics, words, term, lda, text, terms, number	dependency, parsing, parser, head, dependencies, word, tree, parsers, accuracy, proceedings
-0.561	-0.810	0.692	sentiment, opinion, positive, negative, polarity, reviews, review, words, aspect, product	alignment, word, alignments, aligned, sentence, pairs, paraphrases, words, paraphrase, pair
-0.539	-0.621	0.867	entity, entities, name, named entity, mention, wikipedia, mentions, information, ner, ne	translation, phrase, source, statistical machine, translation., system, mt, target, reordering, sentence
-0.442	-0.613	0.722	topic, document, documents, topics, words, term, lda, text, terms, number	parsing, parser, syntactic, parse, sentences, proceedings, sentence, results, constituent, np
			tryst	
-0.380	0.532	-0.715	grammar, parsing, parser, grammars, category, parse, categories, grammar., rules, lexical	parsing, parser, syntactic, parse, sentences, proceedings, sentence, results, constituent, np
-0.289	0.383	-0.755	dependency, parsing, parser, head, dependencies, word, tree, parsers, accuracy, proceedings	verb, syntactic, phrase, noun, case, head, verbs, sentence, structure, semantic
-0.274	0.524	-0.523	rules, rule, rules., derivation, rules, , set, figure, derivations, forest, synchronous	translation, phrase, source, statistical machine, translation., system, mt, target, reordering, sentence
-0.233	0.349	-0.667	parsing, parser, syntactic, parse, sentences, proceedings, sentence, results, constituent, np	verb, syntactic, phrase, noun, case, head, verbs, sentence, structure, semantic
-0.227	0.502	-0.453	discourse, text, structure, relations, two, coherence, relation, focus, discourse., cue	sentence, sentences, summary, summarization, sentences., summaries, using, text, system, sentence.

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