

(In)direct Causation Hypothesis Again: A Case Study of Chinese Analytic Causatives

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1. (In)direct Causation Hypothesis & Chinese Analytic Causatives

(In)direct Causation Hypothesis

- on Dutch causatives *doen* & *laten*
- formulated by Suzanne Kemmer & Arie Verhagen (1997)
- analyzed by Ninke Stukker (2005)

In the case of direct causation, as expressed by *doen*, "The causer produces the effected event directly; there is no intervening energy source 'downstream'". In the case of indirect causation, as expressed by *laten*, "Besides the causer, the causee is the most immediate source of energy in the effected event; the causee has some degree of 'autonomy' in the causal process."

- falsified by Dirk Speelman & Dirk Geeraerts (2009)

Alternative hypothesis:
As a causative verb, *doen* is an obsolescent form with a tendency towards semantic and lexical specialization.

- extended by Yueru Ni (2012) to Mandarin Chinese

Shi is similar to *doen* in Dutch in that it is related to the inanimate entity as the causer part and it expresses the direct causation, and *rang* is related to the animate entity, just as *laten* in Dutch and it expresses the indirect causation.

Chinese Analytic Causatives 使 *shǐ*, 让 *ràng*, etc.

我 *wǒ* 让 *ràng* 客人 *kè rén* 围 *wéi* 着 *zhe* 桌子 *zhuō zi* 坐 *zuò* 下 *xià*。
I CAUSE the guests surround (present tense marker) the table sit down
I asked the guests to sit around the table.

2. Research Questions

I. (In)direct causation hypothesis works for Chinese?

Do the factors related to the predictions derived from (in)direct causation hypothesis play a role in distinguishing Chinese analytic causatives *shi* and *rang*?

II. (In)direct causation hypothesis works WELL ENOUGH for Chinese?

If (in)direct causation hypothesis does capture some difference between *shi* and *rang*, as Ni (2012) put, how significant is it? Is it an adequate reason for language users to choose either of them?

III. Other possible scenarios for the two near-synonyms?

Is there any possibility that Chinese is another case, which does not settle for the (in)direct causation distinction but confirms the multivariate conception of the grammar suggested by Speelman & Geeraerts (2009)?

IV. Cross-linguistic (dis)similarities?

After scrutinizing, can we still claim *shi* and *rang* are the equivalents of *doen* and *laten*? How (dis)similar are their distributions in the two languages?

3. Data & Methods

Datasets		Methods	
Corpora	Observations	Predictors	Procedures
Corpus Online	4078 (<i>shi</i> 3261, <i>rang</i> 817)	•CrInanim •Coref •CsedCstr •CsedChiCollocSig	Binomial logistic regression analysis & model diagnostics
Sheffield Corpus of Chinese	1764 (<i>shi</i> 807, <i>rang</i> 957)	•.... •CrDef •CrPers •CrChiCollocSig •CeInanim •CeDef •CePers •CeChiCollocSig	•Manner •CseNeg •CsedSem •CrChiCollocSig •CsedNeg •Implicit •SyntFun •Time
The UCLA Chinese Corpus (1st ed)			... & multiple correspondence analysis

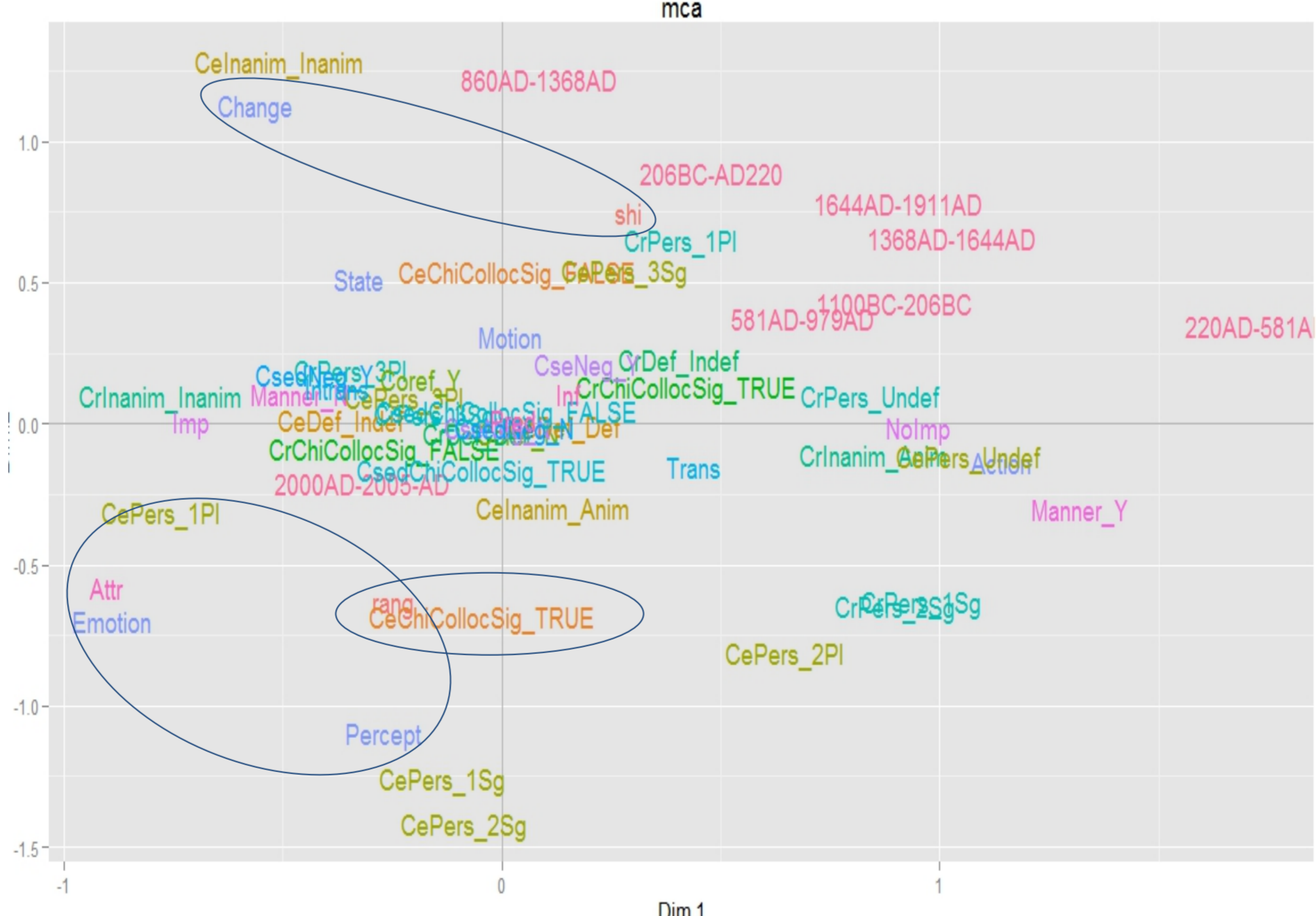
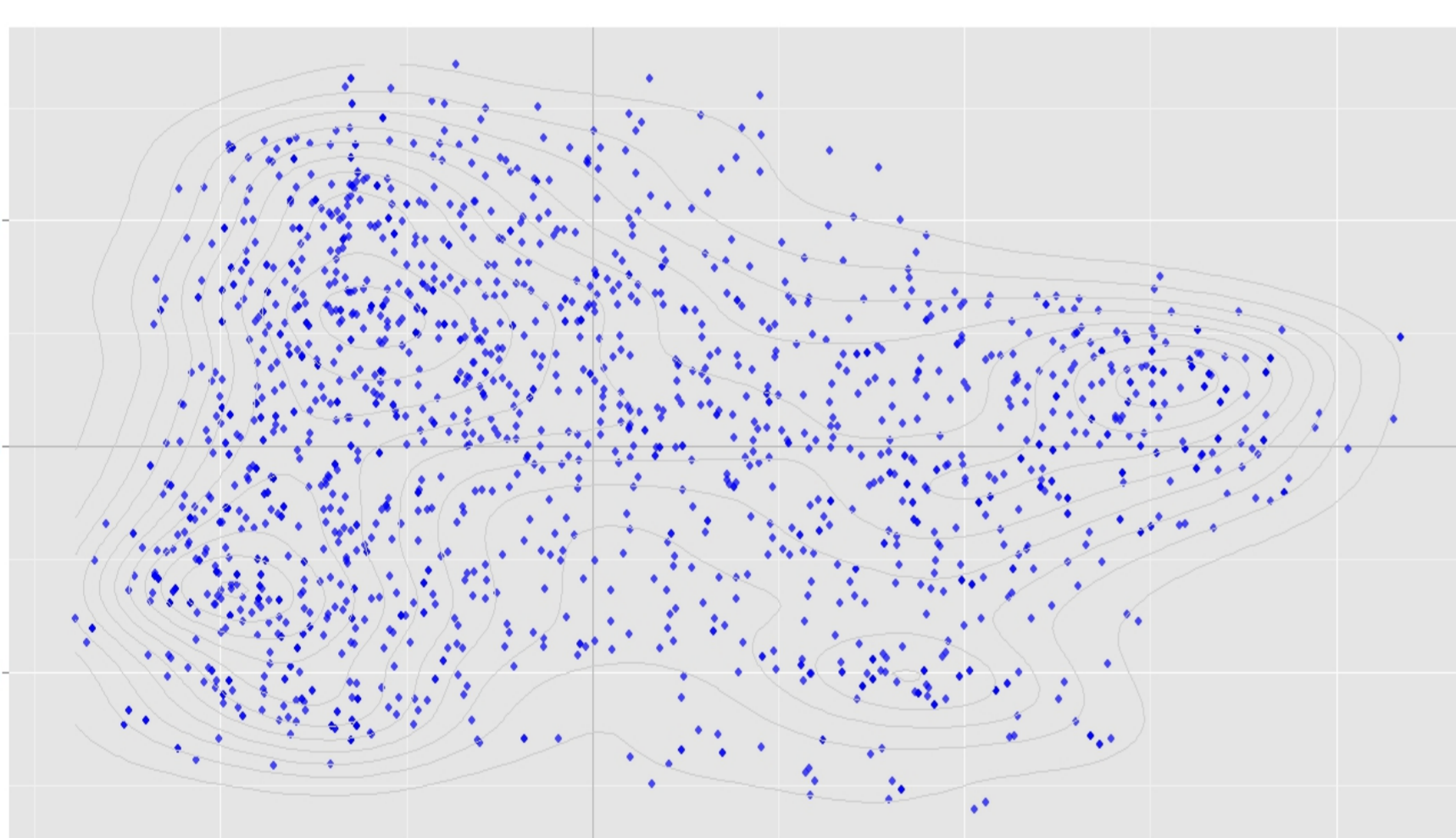
4. Output Reading & Interpretation

Logistic Regression Model I → comparable data size & predictors

predictor	Estimate	Std. Error	z value	Pr (> z)	pR2=
(Intercept)	0.41667	0.07147	5.830	5.53e-09	11h -1577.5881427
CrInanimInanim	2.58040	0.10597	24.350	<2e-16	11hNull -2042.5803940
CorefY	1.30067	0.20609	6.311	2.77e-10	G2 929.9845026
CsedCstrTrans	-0.27387	0.08939	-3.064	0.00219	McFadden 0.2276494
CsedChiCollocSigTRUE	-0.18606	0.09492	-1.960	0.04998	r2MML 0.2039149
					r2CU 0.3222596

Logistic Regression Model II → more potential predictors

Variable	LR Chisq	Df	Pr (>Chisq)
Time ?	709.45	7	< 2.2e-16 ***
CeChiCollocSig	113.72	1	< 2.2e-16 ***
Manner	47.13	1	6.655e-12 ***
CsedSem	46.24	5	8.132e-09 ***
CrChiCollocSig	26.71	1	2.365e-07 ***
CrPers	23.43	5	0.0002797 ***
CrInanim	14.10	1	0.0001730 ***
CePers	14.10	6	0.0284885 *
Coref	11.92	1	0.0005551 ***
CeDef	8.70	1	0.0031835 **
Implicit	6.08	1	0.0136378 *
CeInanim	5.15	1	0.0232840 *
CrDef	1.67	1	0.1961798
CseNeg	0.86	1	0.3546514
CsedNeg	0.81	1	0.3668417
CsedCstr	0.41	1	0.5201103
CsedChiCollocSig	0.01	1	0.9262766
SyntFun	0.01	2	0.9937675



Chinese *shi* & *rang* vs. Dutch *doen* & *laten*

		<i>shi</i>	<i>rang</i>	<i>doen</i>	<i>laten</i>
CAUSE	Causatives	3261 0.7997	817 0.2003	331 0.0782	3664 0.9218
		807 0.4575	957 0.5425		
Causer-related	CrInanim	inanimate	animate	inanimate	animate
	CrPers		2Sg		
	CrCollocSig	true	false		
Causee-related	CeInanim	inanimate	animate		
	CeDef	definite	Indefinite		
	CePers	undefined			
	CeCollocSig	false	true		
Causer-causee relation	Coref	yes	no	no	yes
CAUSE-related	Manner	no	yes		
	CsedCstr	intransitive	transitive	intransitive	transitive
	CsedSem	change	emotion & perception		
	CsedCollocSig	false	true	true	false
Caused event-related	CsedSemCollocSig			true	false
Causing-caused event relation	Implicit	non-implicative	implicative		
Lectal	Country			Belgium	the Netherlands
	Spont			no	yes

6. Conclusion & Further Research

The (in)direct causation distinction can tell some difference between *shi* and *rang*. Although this dimension is not important, it is far from powerful enough to capture all the significant variation. It is rather a minor taxonomy since only about 30% data has been explained by the (in)direct causation only model. There are plenty of other factors which simultaneously draw the entire picture of Chinese causatives, at least the two main ones in this study, such as lexical fixation between causative auxiliaries and their causer or causee. That again supports the multivariate architecture of linguistic system.

Both Chinese and Dutch causatives turn out to be complicated and beyond complete grip of (in)direct causation hypothesis. There are some overlaps of their usages, such as the basic standard of causer's animacy but we cannot claim that they are equal in all the other functions (coreferentiality between causer and causee for example). For a better understanding of their (dis)similarities, further studies should attempt to paint compatible distributional landscapes of Chinese and Dutch causatives by filling research gaps in each language, in order to fully compare and contrast.

7. References

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