

# Mandarin VerbNet and Cross-frame Interactions: Social Interaction Verbs

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## Abstract

Based on Frame Semantics (Fillmore & Atkins 1992) and the Framework of Mandarin VerbNet (Liu & Chiang 2008), this study attempts to explore the issues of Force Dynamics (FD) discussed in Talmy (2000) by investigating force interaction verbs in Mandarin on one hand, and the issues of the lexical distinctions encoded in Mandarin social interaction verbs on the other. Force interactions are conceptual foundations for Social Interaction Verbs (SIVs), which include two semantic categories that show unilateral and bilateral social relations, as evidenced in their syntax-to-semantics correlations.

In terms of unilateral social interactions, the ways physical entities interact with each other in force relations provide the conceptual bases for various causative relations. A direct and unilateral force relation named Force Dynamics (FD) by Talmy (2000) is a semantic category exhibiting that an Agonist is singled out for focal attention and an Antagonist is considered to be the opposite party exerting an effect on the Agonist. By comparing Talmy's FD schemas in English with our observations in Mandarin SIVs, several notable differences are distinguished. For example, while some of the English causation verbs distinguish onset causation (ex. *stop... from*) from extended causation (ex. *keep...from*), Mandarin SIVs are underspecified with regard to the onset/extended distinctions. More differences between English FD schemas and Mandarin unilateral social interactions will be discussed in the study.

According to Talmy, Force Dynamics as a semantic category exhibits a direct and unilateral force relation between two force-exerting entities. Social interaction verbs, however, encode bilateral force relations that Talmy didn't cover in his research. Therefore, we explore the possible range of bilateral force trajectories and the reciprocal interactions lexicalized in Mandarin social interaction verbs may be distinguished by such bilateral force relations.

Adopting Frame Semantics (Fillmore & Atkins 1992), the hierarchical frame structures of Mandarin verbs (Liu & Chiang 2008) and Force Dynamics (Talmy 2000), this study aims to investigate: 1) the distinctions of English and Mandarin social Interaction Verbs, 2) the distinctions of Mandarin Social Interaction Verbs among subgroups, 3) the form-meaning correlations lexicalized in Mandarin Social Interaction Verbs and 4) the conceptual schemas in terms of force relations.

**Keywords: Social Interaction Verbs, Force Dynamics, Frame Semantics**

## **1. Introduction**

### **1.1 Goal of Research**

The purpose of this study is to explore the possible unilateral force relations distinguished and lexicalized in Mandarin SIVs as well as the constructional variations associated with each distinct lexicalization pattern. In addition, it also classifies the bilateral force relations in Mandarin social interaction verbs into different but related frames on the basis of corpus observation as well as provides a systematic and well-motivated account for the reciprocal properties from the aspect of force relations. It follows the scheme established in Liu and Chiang (2008) with an extendable hierarchy of semantic scopes: Archiframe > Primary frame > Basic frame > Microframe. By offering a cognitive semantic account, this study presents a unified, frame-based and corpus-based classification of Mandarin SIVs and ultimately provides evidences to define force dynamics as a natural semantic category in a cross-linguistic level.

### **1.2 Theoretical Background**

In recent years, lexical semantic studies have shown close relationships between lexical meanings and syntactic patterns. In particular, studies of verbal semantics have been widely discussed in linguistic research since verbs are considered to be the core of sentences and crucial in determining syntactic structures (Jackendoff 1983, Levin 1993). A number of studies have drawn significant attention to semantic categorization and grammatical realization (Levin 1993, Tsai *et al.* 1998, Liu 1999, Chang *et al.* 2000, Liu 2002, Liu and Chiang 2005). Among them, several pioneering studies should be emphasized: Fillmore (1971) proposes Frame Semantics, noting that “meanings are relativized to frames”, Levin (1993) classifies English verbs into different categories with a diathesis alternation approach, and Liu (2002) focuses on Mandarin verbal semantics and the syntax-semantics interface as reflected in corpus observation. Also, Goldberg (2005) proposes that “each word sense evokes an established semantic frame.” These previous studies have already built solid foundation for research of verbal semantics.

In Mandarin verbal semantics, Frame Semantic has often been adopted to account for different semantic and cognitive domains of various types of verbs as reflected in argument structure, basic syntactic patterns and collocational behaviors

(see for example Liu 1999, Chiang 2006, Hu 2007, Hong 2009, among others). Adopting Frame Semantics, Liu and Chiang (2008) propose a ‘multi-layered hierarchical taxonomy’ which represent four distinct semantic and cognitive domains or ‘frames’ in verbal semantics as Archiframe > Primary frame > Basic frame > Microframe, classifying Mandarin verbs into different subframes. As an attempt to further explore verbal semantics and its interaction with syntactic behavior, the study investigates Mandarin social interaction verbs. By probing into the grammatical behavior of Mandarin social interaction verbs, the study aims to provide clear definitions and conceptual representations in terms of force relations (cf. Force Dynamics in Talmy 2000), so as to clarify the distinctions between different classes of social interaction verbs. The social interaction verbs belong to an archiframe called “Social Interaction Archiframe.” Below the archiframe are two primary frames named Unilateral Primary frame and Bilateral Primary frame. In order to account for the distinction between the studies of the two primary frames, works of Force Dynamics and Social Interaction Verbs will be elaborated in the following section.

### **1.2.1 Force Dynamics**

Many works on Force Dynamics (FD) manifestation on verbs propose that the ways physical entities interact with each other in terms of force provide the conceptual bases for various causative relations (Talmy 1988, 2000; Chiang 2003). As distinct force relations in different semantic domains are exemplified in English (Talmy 1988, 2000; Wolff *et al.* 2002), German (Wolff *et al.* 2005) and the like, the studies of force relations in Mandarin focus on the physical, psychological, and intrapsychological causation (Lai and Chiang 2003; Chiang 2003; Chang 2007) respectively; whereas force interaction verbs as a whole have heretofore received scanty analysis.

Force dynamics is discussed in great detail in Talmy (2000). According to Talmy, force dynamics as a semantic category exhibits a direct and unilateral force relation. Several major force-dynamic patterns such as “causing” and “letting” were distinguished to conceptualize possible force relations. Talmy further suggested that force-dynamic patterns incorporated in lexical items can bring many of them together into systematic relationships (Talmy 2000: 409).

In light of Talmy’s theory, this study tries to tackle the following questions:

***1) Do those force dynamic senses schematized by Talmy (2000) exist in Mandarin as well? In what way and to what extent are they lexicalized in Mandarin?***

**2) Are there any differences between English FD schemas and the Mandarin ones?**

**3) Talmy suggested that FD is a unique semantic category and is extendable to various interaction domains, are there other possible force relations left out from Talmy's discussion?**

The three issues are of great importance because they not only display force dynamics in Mandarin but also refine the force-dynamic schemas proposed by Talmy (2000) into a more complete mechanism.

### **1.2.2 Social Interaction Verbs**

According to Levin's taxonomy (1993), verbs of social interaction are related to group activities that inherently involve more than one participant. A significant number of these verbs are related to fighting; another large group is related to verbal interactions. When one of these verbs takes a subject that refers to a single person, then it must take either a direct object (the *marry* verbs) or a *with* phrase (the *correspond* verbs); it need not take a complement if its subject is a collective NP. In addition, those verbs that relate to verbal interactions can take a prepositional phrase describing the content of the communication (*They bargained over the price*), while those verbs that relate to fighting can take prepositional phrases describing the reason for the fight (*They fought over the land*). The prepositions most commonly heading such phrases are *over* and *about*; the choice of preposition depends on the verb and the content of the preposition phrase itself.

In addition, Haspelmath (2007) proposes that lexical reciprocals can be defined as predicates that express a mutual configuration by themselves, without necessary grammatical marking. They consist of a semantically restricted set of predicates whose meanings generally fall into the class of social actions and relations ('*marry*', '*quarrel*', '*friend*'), spatial relations ('*adjoin*', '*next to*'), and the relations of (non-)identity ('*same as*', '*different from*', '*resemble*').

However, since neither verbs of social interaction nor lexical reciprocals have been adequately studied in the field of Mandarin verbal semantics, there are still some issues that need to be further investigated:

- 1) What are the form-function correlations lexicalized in Mandarin social interaction verbs?**
- 2) What are the classification criteria for Mandarin social interaction verbs?**
- 3) How is the reciprocity in terms of force relations conceptualized in Mandarin**

### *social interaction verbs?*

To fill the gaps, this study focuses on Mandarin social interaction verbs, attempting to provide a detailed frame-based solution to the form-meaning interactions and to propose conceptual schemas in terms of force relations in order to ultimately pursue a broader generalization of reciprocity encoded in the verbs.

Ultimately, the study provides a detailed analysis of the lexical distinctions encoded in Mandarin social interaction verbs as evidenced in their syntax-to-semantics correlations and proposes frame-specific conceptual schemas as semantic links for different types of social interaction verbs.

## **1.3 Research Method**

### **1.3.1 Data Base**

The Data used in the present analysis is mainly based on the corpus data from Academia Sinica Balanced Corpus of Modern Mandarin Chinese (Sinica Corpus) (<http://dbo.sinica.edu.tw/SinicaCorpus/index.html>). The second database is Chinese Word Sketch (<http://wordsketch.ling.sinica.edu.tw/>), which provides amplified data in contribution to grammatical co-occurrence and the distribution of syntactic behavior of each lemma. Thirdly, ‘Google Search,’ the daily-updated database, (<http://www.google.com.tw/>) is used to verify collocational observations, which may be lacking in the two aforementioned less frequently updated corpora. Other supplementary sources are “the Academia Sinica Biligual Ontological WordNet (Sinica BOW) (<http://bow.sinica.edu.tw/>), which shows the English-Chinese bilingual lexical access, the Framenet (<http://framenet.icsi.berkeley.edu/>), and the Mandarin Verbnet (<http://140.113.222.78/verbnet/website/>).

### **1.3.2 Theoretical Framework**

Two theoretical frameworks are adopted in this study. Force Dynamics (Talmy 2000) is adopted to explore possible force relations and FD schemas lexicalized by Mandarin SIVs. Frame Semantics (Fillmore and Atkins 1992) as well as the frame-based taxonomy proposed by Liu and Chiang (2008) are adopted to establish a unified, frame-based, and corpus-based classification to the study of SIVs in Mandarin.

### **1.3.3 Frame Semantics**

Fillmore and Atkins (1992) propose a cognitive framing system to the meaning(s) of words. A word links or activates semantic frame(s) in which the concept of the word is defined. That is to say, the meaning(s) of a word is(are) both embodied and situated in a specific environment, say it a frame as its' background. Each frame contains core frame elements, and different word senses are shown by different frames in which specific frame elements are highlighted. Moreover, the profiled frame elements will lead to distinct syntactic behaviors. By observing the syntactic-semantic correlations, the meanings of verbs can be identified.

### **1.3.3.1 Framework of Mandarin VerbNet**

Under the assumption that verb meanings are anchored in semantic frames with lexically-profiled specificities (Fillmore and Atkins 1992), Mandarin SIVs are analyzed and re-constructed with a frame-based taxonomy, following the classificational scheme established in Liu and Chiang (2008) with an extendable hierarchy of semantic scopes: Archiframe > Primary frame > Basic frame > Microframe. The higher the frame is, the broader semantic domain it is and the more background frame information it provides.

According to Liu and Chiang (2008), the Archiframe (AF) is the highest semantic domain in which the maximal scope of background information for a unique event type is provided. It has an overarching conceptual schema with a default set of participant roles (a.k.a. frame elements). Primary Frames (PFs) are more focused frames in which given portion of the conceptual schema is profiled or specified. Different primary frames contain distinctive and unique set of core frame elements. Basic Frames (BFs) highlight a particular participant role or relation within the primary frame. Basic frames are distinguished based on the syntactic patterns that foreground or background certain frame elements. Microframes (MFs) are distinguished according to role-internal features of frame elements. Under the hierarchical scheme, each frame is specified with a definition, a set of frame elements, frame-level defining patterns, a subpart of conceptual schema, and representative lemmas.

### **1.3.4 Methodology**

In this study, we analyze Mandarin SIVs and observe whether they belong to unilateral verbs or bilateral verbs. To capture the mapping relation between syntactic realizations and semantic properties of Mandarin unilateral SIVs, five steps are

constructed:

**Step 1: Comparing the FD patterns in English proposed by Talmy (2000) to those in Mandarin so as to develop the possible lexicalization patterns of Mandarin SIVs.**

To better accommodate the conceptual connection between force dynamics and force interactions, the present study firstly compared the FD patterns in English with those in Mandarin so as to find possible force relations in Mandarin SIVs. Based on the lexicon that represents different FD patterns, the equivalent Mandarin lexicon was obtained through Sinica BOW.

**Step 2: Defining and Finding the Mandarin Social Interaction Verbs**

We also made reference to the English database FrameNet in searching for potential targets left from Talmy's discussion. We focus on the verbs depicting external and unilateral social interaction between two distinct and purposeful force-exerting parties for or to trigger a particular action in interactive settings. Based on the lexical items listed in FrameNet, the equivalent Mandarin lemmas were obtained through Sinica BOW as well. Notice that the irrelevant lemmas were filtered out and some related but neglected lemmas were added in.

**Step 3: Collecting the Corpus Data**

Sinica Corpus, Chinese Word Sketch, and Google Search were used to collect the corpus data of the target verbs.

**Step 4: Observing and Investigating the Data**

The Investigation particularly lied in the conceptual FD schemas, syntactic realizations and semantic attributions of each verb. The data were under inspection in their 1) grammatical function, 2) syntactic categories, 3) syntactic patterns, 4) frame elements, and 5) grammatical collocations.

**Step 5: Analyzing and Classifying the Verbs in Inspection**

The findings based on the previous investigation were utilized as decisive criteria for the taxonomy of social interaction verbs in Mandarin.

On the other hand, to capture and analyze the form-to-meaning interaction of Mandarin social interaction verbs, four steps are taken successively as follows:

**Step 1: Finding Mandarin Social Interaction Verbs**

Based on the lexical items mentioned in Levin's and Haspelmath's studies, the author searched the English database FrameNet, and several frames related to verbs of social interaction are found. As mentioned in section 2.2, most verbs of social interaction come from the Reciprocity Frame, which is inherited by several subframes such as Amalgamation, Being\_attached, Chatting, Collaboration, Commercial\_transaction, Discussion, Exchange, Make\_acquaintance and Similarity Frame, as shown in Table (1) below:

No.	Frame Name	Lemma
1	Amalgamation	combine, merge, unify, unite, etc.
2	Being_attached	attached, connected, linked, etc.
3	Chatting	chat, converse, speak, talk, etc.
4	Collaboration	collaborate, cooperate, partner, work together, etc.
5	Commercial_transaction	transaction, etc.
6	Discussion	communicate, debate, discuss, negotiate, etc.
7	Exchange	change, exchange, trade, etc.
8	Make_acquaintance	meet, etc.
9	Similarity	like, alike, unlike, differ, different, similar, dissimilar, distinct, resemble, vary, etc.

Table (1): Subframes inherited from Reciprocity Frame in FrameNet

The English lemmas then served as the input to the Academia Sinica Bilingual Ontological WordNet (Sinica BOW), a bilingual database, and Dr. Eye, a translation program, to obtain the equivalent Mandarin lemmas. Moreover, 教育部重編國語辭典修訂本 is consulted so as to exhaust the targets of research. In addition, Mandarin social interaction verbs not found during this step are also added to the word pool. The equivalent Mandarin social interaction verbs are listed in Table (2) below:

No.	Frame Name	Lemma
1	Amalgamation	結合、合併、聯合
2	Being_attached	聯結、連結
3	Chatting	聊天、談、論、談論
4	Collaboration	合作、合夥、合力
5	Commercial_transaction	交易
6	Discussion	溝通、爭論、討論、協調
7	Exchange	交換、交易



8	Make_acquaitance	見面、碰面
9	Similarity	像、不像、一樣、不一樣、相似、不同

Table (2): Mandarin equivalents of subframes inherited from Reciprocity Frame in FrameNet

Note that only verbs and nominalized verbs are included in this study, whereas attributive predicates, adjectives and nouns are not. Several unrelated lemmas are filtered out, such as those lemmas in Similarity Frame, and some related but neglected lemmas are added into examination during the analysis.

**Step 2: Collecting Corpus Data—Obtaining Sentences Containing Mandarin Social Interaction Verbs**

After grouping the Mandarin social interaction verbs, the author searched and collected corpus data in Sinica Corpus, Chinese Word Sketch, and Google as well.

**Step 3: Examining the Data—Observing the Morphological and Grammatical Characteristics**

To clarify the syntactic expressions and semantic attributions of each verb, the author examined the data particularly in their 1) syntactic categories, 2) grammatical functions, 3) frame elements, 4) syntactic patterns, and 5) grammatical collocations and morphological make-ups.

**Step 4: Analyzing and Categorizing the Verbs—Postulating Conceptual Schema Based on Frame Elements**

A set of essential frame elements are found from the corpus data. Based on the frame elements, a conceptual schema is postulated. The findings based on previous examination were utilized as criteria to analyze and categorize Mandarin social interaction verbs into different but related frames.

**2. Conceptual Schema of Social Interaction Archiframe**

According to Liu and Chiang (2008), an Archiframe is the maximal scope of an eventive background, which is schematized by a Conceptual Schema (CS) plotting with a set of default participants, that is, the Frame Elements (FEs). The schematized representation reveals the cognitive basis for a specific frame and the interrelations among its subframes.

In the study, social interaction events are divided into unilateral and bilateral social interaction depending on what force trajectory projections they denote.

(1) Two Clines of Social Interaction Events:

a. Unilateral Social Interaction (A → B → Target)

華府阻止法國出售航空母艦給中共。

*Huáfǔ zǔzhǐ Fàguó chūshòu hángkōngmǔjiàn gěi Zhōnggòng*

Washington D.C. ZUZHI France vend aircraft carrier to Chinese Communist Party

‘The US government stops France from vending the aircraft carrier to the Chinese government.’

b. Bilateral Social Interaction (A and B → Target)

我們合作舉辦就業博覽會。

*wǒmen hézuò jǔbàn jùnyè bólǎnhuì*

we HEZUO host career fair

‘We cooperate in hosting a career fair.’

章子怡和李安合作《臥虎藏龍》。

*Zhāngzǐyí hé Lǐān hézhò Wòhǔcánglóng*

Zhangziyi Conj. An Lee HEZUO “Crouching Tiger, Hidden Dragon”

‘Zhanziyi and An Lee cooperate in (filming the movie) “Crouching Tiger, Hidden Dragon”.’

The social interaction in (1a) is exerting between a force-initiating party 華府 *Huáfǔ* ‘The US government’ and a force-taking party 法國 *Fàguó* ‘France’ for a target action 出售航空母艦給中共 *chūshòu hángkōngmǔjiàn gěi Zhōnggòng* ‘sale the aircraft carrier to the Chinese government’ whereas the social interaction in (1b) is exerting mutually and reciprocally between two conjoined Force-exerting parties 我們 *wǒmen* ‘we’ or 章子怡和李安 *Zhāngzǐyí hé Lǐān* ‘Zhanziyi and An Lee’ for a target action 舉辦就業博覽會 *jǔbàn jùnyè bólǎnhuì* ‘host a career fair’ or for a target theme 臥虎藏龍 *Wòhǔcánglóng* ‘Crouching Tiger, Hidden Dragon.’ Nevertheless, no matter the event is unilateral or bilateral, a social interaction event takes two force-exerting parties (A, B, or A+B) to interact with and a particular Target (an action or a theme) that is related to the interaction. Diagram (1) below displays the conceptual schema of social interaction events:

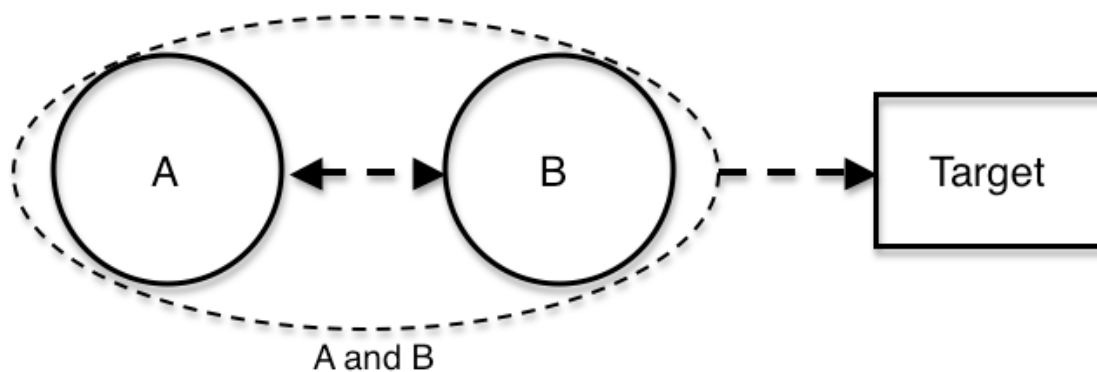


Diagram (1): the Conceptual Schema of Social Interaction Archiframe

In the conceptual schema, Force-exerting party\_1 (A) and Force-exerting party\_2 (B) impose the dynamic forces upon each other interactively for a particular Target. Note that it is possible for A and B to combine and conjoin as Force-exerting parties (A+B) to reach a Target in a social interaction.

### 3 Frame-based Analysis

#### 3.1 The Hierarchical Structure of the Social Interaction Verbs

The analysis of Mandarin social interaction verbs is based on the theory of Frame Semantics (Fillmore and Atkins 1992) and the framework of Mandarin VerbNet proposed by Liu and Chiang (2008). Mandarin social interaction verbs can be categorized into different frames which can be further analyzed into different layers. In this section, the relationship of frames in social interaction domain will be introduced. The hierarchical structure of frames is as follows: Archiframe > Primary frame > Basic frame > Microframe. Archiframe is a broad semantic domain defined with a general event schema; Primary frame is a subpart of the schema with a unique set of core frame elements; Basic frame highlights particular frame elements, realizing them in particular constructions, called defining patterns; Microframe is further distinguished according to role-internal specifications of frame elements, such as Collocational Association, Semantic Attribute, and Morphological Make-up. Since the issue of this study is social interaction verbs, only frames under Bilateral Primary Frame will be presented.

#### 3.2 Layer 1: Archiframe

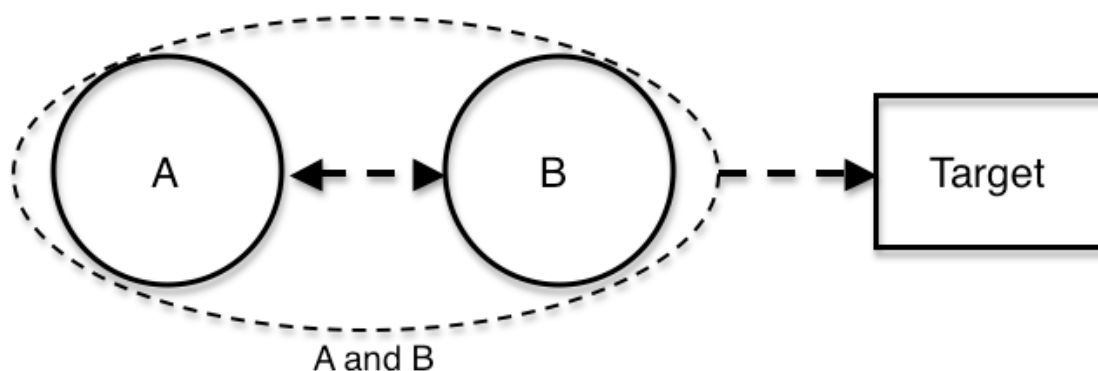
According to Liu and Chiang (2008), an Archiframe (AF) is relatively the highest frame in the extendable semantic hierarchy. It represents a relatively large and independent semantic domain, in this case, the social interaction domain. An archiframe provides an overarching conceptual schema as the semantic prerequisite for the individual subframes underneath. The information of Social Interaction archiframe is given below:

**Definition:** A relational social interaction that involves two (sometimes more) Force-exerting parties (A and B), in which Force-exerting party\_1 (A) and Force-exerting party\_2 (B) impose dynamic forces upon each other interactively to reach a particular Target. Note that it can be further divided into Unilateral interaction and Bilateral interaction based on what force trajectory it is.

**Representitive lemma:** 阻止 *zǔzhǐ* “to stop,” 合作 *hézuò* “to cooperate”

**Frame Elements:** Force-exerting party\_1, Force-exerting party\_2,  
Force-exerting parties, Target

**Conceptual Schema:**



**Defining Patterns:**

a. Force-exerting party\_1[NP] < \* < Force-exerting party\_2 [NP] < (Target[VP])  
[隔壁的王先生/Force-exerting party\_1] 一直 [阻止/Social Interaction][她/Force-exerting party\_2][買房子/Target]，

*gébì de Wáng xiānshēng yìzhí zǔzhǐ tā mǎi fángze*

next door Wang mister continuously ZUZHI 3sg buy house

‘Mister Wang next door keeps restraining her from buying the house.’

b. Force-exerting party\_2[NP] < \* < Force-exerting party\_1[NP] < (,Target[VP])  
[我/Force-exerting party\_2][順從/Social Interaction][婆婆/Force-exerting party\_2]，[努力持家/Target]。

*wǒ shùncóng pópó nǚlichíjiā*

I comply with mother-in-lawstrive manage household

‘I complied with my mother-in-law, and strived to manage the household.’

c. Force-exerting party\_1[NP] < Conj{和/跟/與} < Force-exerting party\_2[NP]

< \* < (Target[VP;NP;CL])

[紀金池/Force-exerting party\_1]與[好友/Force-exerting party\_2][合力/Force Interaction][創辦私立盲人有聲圖書館/Target]，

*Jījīnchí yǔ hǎoyǒu héli chuàngbàn sīlì yǒushēng túshūguǎn*

Jijinchi CONJ good friend HELI found Private audio library for the blind

‘Jijinchi and his good friend cooperate in founding the Private audio library for the blind.’

d. Force-exerting parties[NP] < \* < (Target[VP;NP;CL])

[兩個町/Force-exerting parties][合作/Social Interaction][舉辦嘉年華會/Target]。

*liǎng-ge tǐng hézuò jǔbàn jiāniánhuáhuì*

Two city block HEZUO host carnival

‘The two city blocks cooperate in hosting the carnival.’

### 3.3 Layer 2: Primary Frame

Primary Frames (PFs) are one layer below the archiframe in which given portion of the conceptual schema is profiled or specified. Different Primary Frames contain distinctive and unique set of core frame elements (FEs) and are defined with syntactic representations that are more restricted. With the findings, two primary frames are divided based on whether the force trajectory is **Unilateral** or **Bilateral**. The unilateral frame focuses on the initiating-subordinary relationship between force-exerting party 1 and 2, which might due to or trigger a particular target action; the bilateral frame, on the other hand, emphasizes on the reciprocal relationship among two or more conjoined force-exerting parties interacting for a target.

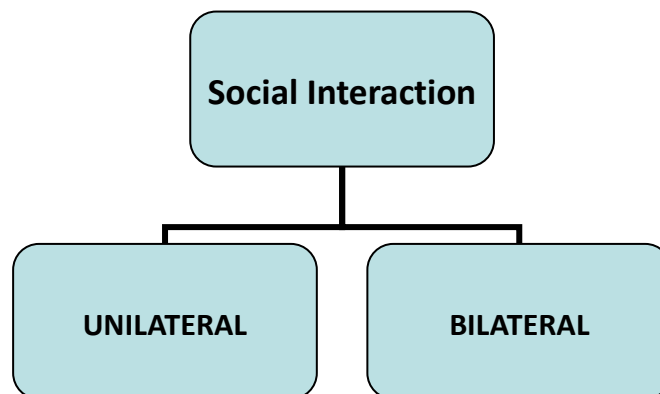


Diagram (2): The Primary Frames under Social Interaction Archiframe

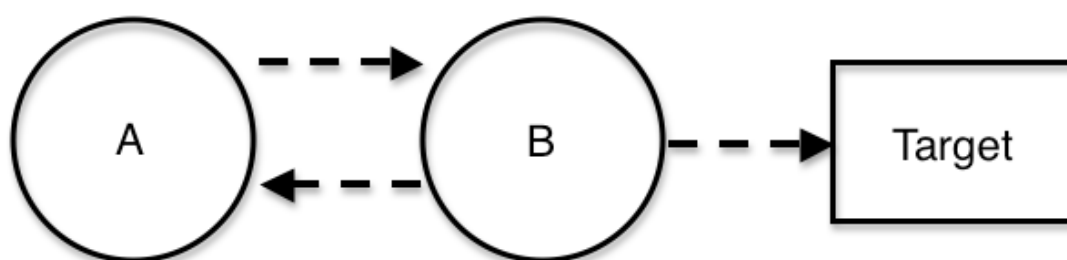
#### 3.3.1 PF 1: Unilateral Primary Frame

**Definition:** It is an initiating-subordinate social interaction in which Force-exerting party\_1 (A) and Force-exerting party\_2 (B) impose the dynamic action upon each other interactively for or to trigger a particular Target action that is performed by either one or by both parties due to the force competition between the two.

**Representative Lemma:** 強迫 *qiángpò* ‘force’, 阻止 *zǔzhǐ* ‘restrain’, 中止 *zhōngzhǐ* ‘discontinue’, 反抗 *fǎnkàng* ‘resist’, 幫助 *bāngzhù* ‘help’, 允許 *yǔnxǔ* ‘allow’

**Core Frame Elements:** Force-exerting party\_1, Force-exerting party\_2, Target

**Conceptual Schema:**



**Defining Patterns:**

(a) Force-exerting party\_1 [NP;CL] < \* < Force-exerting party\_2 [NP;CL]  
< (Target[VP])

[他/Force-exerting party\_1] 臥軌 [阻止/Unilateral][火車/Force-exerting party\_2][啟動/Target]。

*ta wogui zuzhi huoche qidong*

(b) Force-exerting party\_2 [NP] < \* < Force-exerting party\_1 [NP] < (, Target [VP])

[我/Force-exerting party\_2][反抗/Unilateral][黨中央/Force-exerting party\_1]，  
[參選了這次立委選舉/Target]。

*wo fankang dangzhongyang canxuan-le zhe-ci liwei xuanju*

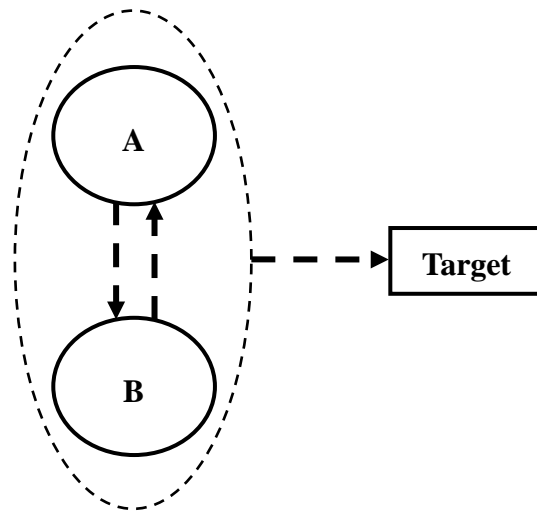
### 3.3.2 PF 2: Bilateral Primary Frame

**Definition:** It is a reciprocal social interaction which inherently involves two or more participants of equal status, in which Force-exerting party\_1 (A) and Force-exerting party\_2 (B) impose mutual forces on each other and conjoin as Force-exerting parties (A and B) in order to reach a Target within social settings.

**Representative Lemma:** 合作 *hézuò* ‘collaborate’, 競爭 *jìngzhēng* ‘compete’, 交流 *jiāoliú* ‘interact’, 互動 *hùdòng* ‘interact’, 分開 *fēnkāi* ‘separate’, 對抗 *duìkàng* ‘oppose’, 配合 *pèihé* ‘coordinate’, 結合 *jiéhé* ‘combine, integrate’

**Core Frame Elements:** Force-exerting party\_1, Force-exerting party\_2, Force-exerting parties, Target

**Conceptual Schema:**



**Defining Patterns:**

(a) Force-exerting party\_1 [NP] < Conj {和/跟/與} < Force-exerting party\_1 [NP] < \* < (Target [NP;VP;CL])

一九九零年 [杜可風 /Force-exerting party\_1] 和 [香港導演王家衛 /Force-exerting party\_2][合作/Bilateral][拍攝《阿飛正傳》/Target]。

*yijiujiulingnian dukefeng han xianggang daoyan wangjiawei hezuo paishe afeizhengchuan*

(b) Force-exerting parties [NP] < \* < (Target [NP;VP;CL])

[萊特兄弟/Force-exerting parties]長大以後，[合作/Bilateral][經營一家腳踏車店/Target]。

*laite xiongdi zhangda yihou hezuo jingying yi-jia jiaotachedian*

### 3.4 Layer 3: Basic Frame

Basic Frames are semantically more restricted frames under each primary frame. Each one of them specifies a narrower scope of meaning. According to Liu and Chiang (2008), basic frames are “semantically more informative, distributionally more frequent and common, and are associated with foregrounded or backgrounded frame elements within the set of primary-selected elements.” (Liu and Chiang 2008:10)

That is to say, different basic frames highlight different frame elements with distinctive syntactic representations. For basic frames under the same primary frame, they inherit the defining patterns from the primary frame but develop some unique syntactic patterns of their own, which separate them from one another.

From the above, we see that the primary frame level contains two primary frames: Unilateral primary frame and Bilateral primary frame. Therefore, each primary frame is divided into different basic frames. First of all, we would look into the unilateral primary frame. Verbs in the unilateral primary frame are divided into several basic frames based on the force direction they encode and the asymmetrical presentation of certain frame elements, i.e., foregrounding or backgrounding particular frame elements to denote a narrower meaning. Examples below demonstrate six defining patterns matching with six foregrounded frame elements, which show the difference among different basic frames:

(2) Foregrounding frame elements of verbs under Unilateral primary frame

- a. [有一些雇主/Antagonist] 強迫 [懷孕婦女/Agonist] [在產前離職/Target act] ,  
*yǒu yìxiē gùzhǔ qiángpò huáiyùn fùnǚ zài chǎnqián lízhí*  
 there are some employer QIANGPO pregnant women procreationbefore leave  
 one's job  
 'There are some employers forcing pregnant employees to leave their job  
 before they give birth to a child.'
- b. [音樂/Agonist] 快慢交雜 , 絕不中止 。  
*yīnyuè kuàimàn jiāozá juébù zhōngzhǐ*  
 music fast slow interwine never ZHONGSHI  
 'The music with mixed speed never stops (for good).'
- c. [組織委員/Antagonist] 阻止 [記者/Agonist] [不要詢問政治性議題/Target act] 。  
*zǔzhī wěiyuán zǔzhǐ jìzhě búyào xúnwèn zhèngzhìxiàng yìtí*  
 Organizing committee ZUZHI reporter NEG-ask political issue  
 'The organizing committee stops reporters (because they) don't want them to  
 ask questions about political issues.'
- d. [我/Re-acting force] 聽從 [醫生的指示/Prior force] , [接受治療並經常和醫師  
聯繫 /Accompanying act] 。  
*wǒ tīngcóng yīshēng de zhǐshì jiēshòu zhìliáo bìng jīngcháng hé yīshī lián xi*  
 I obey doctor-DE instruction receive treatment and constant with doctor  
 contact  
 'I obeyed the instruction of the doctor, took treatments and remained contact  
 with the doctor constantly.'
- e. [各地義工/Benefiter] 幫忙 [救難隊/Beneficiary] [搬動救援物資/Target act] 。  
*gèdì yìgōng bāngmáng jiùnànduì bāndòng jiùyuán wùzī*  
 each region volunteers BANGMANG rescue team transport relief goods  
 'Volunteers from different regions help the rescue team transport relief goods.'
- f. [美國人/Grantor] 允許 [老蔣/Grantee] [出兵/Target act]



*Měiguórén yǔnxǔ lǎoJiǎng chūbīng*

American YUNXU old Jiang dispatch troops

‘The American (government) allows old Jiang to dispatch troops.’

If we compare (2a) with (2b), we found that when talking about the event of 強迫 *qiángpò* “to force,” the force-initiating Antagonist is usually mentioned whereas in the event of 中止 *zhōngzhǐ* “to discontinue,” the Antagonist (say it the DJ) is not as important as it is in the forcing event. Therefore, Antagonist is foregrounded in forcing events like (2a) and backgrounded in terminating events like (2b). On the other hand, the event of 阻止 *zǔzhǐ* “to restrain” quite often highlight the Antagonist and a Target act that indicates the purpose of opposition; In the event of 反抗 *fǎnkàng* “to resist,” it is the Re-acting force that plays the most important role to react whereas in the event of 幫忙 *bāngmáng* “to help,” and 允許 *yǔnxǔ* “to allow,” it is the Beneficiary and the Grantor that stand under a spotlight respectively.

With different foregrounded elements in (2), there are six basic frames under the unilateral primary frame, namely Forcing, Try to stop, Stopping, Counteractive forcing, Assisting, and Letting as shown in diagram (3) below:

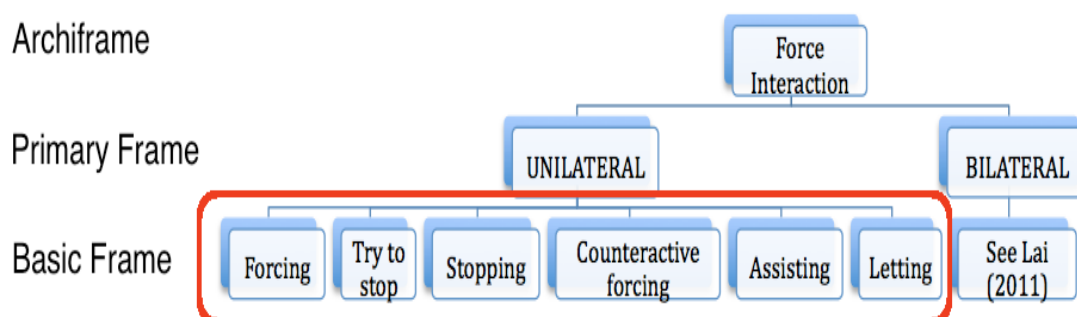


Diagram (3): The Basic Frames under Unilateral Primary Frame

As illustrated above, verbs in unilateral primary frame display distinctive force directions in social interaction. Lemmas in Forcing, Try to stop, and Stopping frames denote the interaction between two opposite forces (the Antagonist and the Agonist.) Lemmas in Counteractive forcing frame presuppose an act given from a Prior force to be counteracted with by a Re-acting force. Lemmas in Assisting frame signal a same directional social interaction between the Benefiter and the Beneficiary; whereas lemmas in Letting frame encode the social interaction in which one disengaging Grantor interact with a Grantee.

### 3.4.1 Unilateral Basic Frame1: Forcing Basic Frame

**Definition:** Verbs in this frame describe social interactions in which a foregrounded antagonistic entity or event (Antagonist) exerts an opposite force to an agonistic entity (Agonist,) which is forced to move toward a Target act (usually do it in a reluctant way).

**Lemma:** 迫使 *pòshǐ* “to make,” 強使 *qiángshǐ* “to make,” 逼使 *bīshǐ* “to make,” 逼迫 *bīpò* “to force,” 強迫 *qiángpò* “to force,” 逼 *bī* “to force,” 強逼 *qiángbī* “to force”

**Frame Elements:** Antagonist, Agonist, Target act

**Conceptual Schema:**



**Defining Patterns:**

a. Antagonist[NP;CL] <{故意/刻意}<\* <Agonist[NP] < (Target act[VP])  
[民主黨/Antagonist]刻意[迫使/Forcing][眾議院/Agonist][進行表決/Target act]。

*Mínzhǔdǎng kùyì pòshǐ zhòngyìyuàn jìnxíng biǎojié*

The Democratic party deliberately POSHI the House of Representatives to vote  
'The Democratic party had the House of Representatives to vote to decide deliberately.'

b. Antagonist[NP] <把 <Agonist[NP] < \* < Target act[VP]  
[保守派人士/Antagonist]努力把[柯爾/Agonist][逼/Forcing][下台/Target act]。

*bǎoshǒupài rénshì nǔlì bǎ Kē'ěr bī xiàtái*

the conservatives strive BA Gore BI resign

'The conservatives works very hard to force Gore to resign.'

c. Agonist[NP] <被/遭/為/遭到 <Antagonist[NP] < \* < Target act[VP]  
[報社/Agonist]被[獨裁者/Antagonist][強迫/Forcing][歇業/Target act]。

*bàoshè bèi dúcáizhě qiángpò xiēyè*

newspaper office BEI autocrat QIANGPO shut down

'The newspaper office is forced to shut down by the autocrat.'

d. Antagonist[NP] < {用/以/靠} [Prep]+Instrument[NP]/Means[NP;VP] < \* < Agonist[NP] < (Target act[VP])

[外國/Antagonist]用[槍砲/Instrument][強迫/Forcing][清朝政府/Agonist][開放港口通商/Target act]。

*Wàiguó yòng qiāngpào qiángpò qīngcháo zhèngfǔ kāifàng gǎngkǒu tōngshāng*  
 Foreign countries by firearms QIANGPO Qing government open port trade  
 ‘Foreign countries forced the Qing government to open a trade pass at the ports.’

e. \*Dui

\*[我/Antagonist]對[他/Agonist][迫使/強迫/逼/Forcing]。

*wǒ duì tā pòshǐ/qiángpò/bī*

I to 3sg POSHI/QIANGPO/BI

\*‘I force to him.’

### 3.4.2 Unilateral Basic Frame2: Try to stop Basic Frame

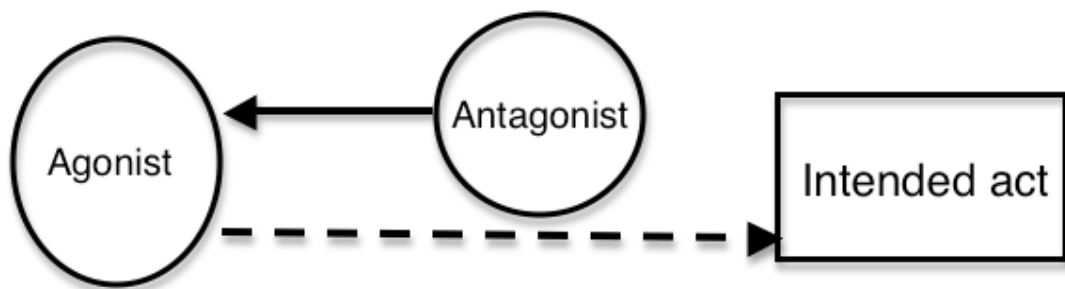
**Definition:** Verbs in this frame describe social interactions in which an Agonist is typically forced by an Antagonist to move away from an Intended act.

However, in some cases, the Agonist is forced by an Antagonist to move toward a certain Target act that indicates the purpose of Antagonist’s opposition.

**Lemma:** 阻止 *zǔzhǐ* “to restrain,” 阻擋 *zǔdǎng* “to block,” 阻礙 *zǔài* “to hinder,” 制止 *zhìzhǐ* “to stop,” 遏止 *èzhǐ* “to stop,” 遏制 *èzhì* “to stop,” 阻撓 *zǔnáo* “to hinder,” 攔阻 *lánzǔ* “to hinder,” 預防 *yùfáng* “to prevent,” 防止 *fángzhǐ* “to prevent,” 避免 *bìmiǎn* “to avoid”

**Frame Elements:** Antagonist, Agonist, Intended act, Target act

**Conceptual Schema:**



**Defining Patterns:**

a. Antagonist[NP;CL] <({企圖/試圖/打算}) <\* <Agonist[NP] <(Intended act[VP])

[大學聯招會/Antagonist]試圖[阻擋/Try to stop][各媒體/Agonist][統計錄取率/Intended act]，

*dàxuéliánzhāohuì shìtú zǔdǎng gè méotǐ tǒngjì lùqǔlǜ*

Joint board of College recruitment commossion try ZUDANG every mass media gather statistics enrollment rate

‘The Joint board of College recruitment commission tries to stop the press from gathering statistics of the enrollment rate.’

b. Antagonist[NP] < \* < Agonist[NP] < Target act[VP]

[巴國/Antagonist]企圖[阻止/Try to stop][柯林頓/Agonist][不要過分親近北京/Target act]。

*Bāguó qìtú zǔzhǐ Kēlìndùn búyào guòfèn qīnjìn Běijīng*

Pakistan government try ZUZHI Cliton Neg excessively close to Beijing Government

‘The Pakistan government tries to stop Cliton (because they) don’t want him (or America) to be too close to the Beijing government.’

c. Antagonist[NP] < (Means[NP;VP]) < 把 < Agonist[NP] < \*

[警方/Antagonist][部屬警力/Means]把[反核人士/Agonist][阻擋/Try to stop]在外。

*jǐngfāng bùshǔ jǐnglì bǎ fǎnhérenshì zǔdǎng zài wài*

police arrange police forces BA anti-nuclear people ZUDANG at out

‘The police arranged a crew to block the anti-nuclear people out.’

d. Agonist[NP] < {被/為/遭/遭到} < Antagonist[NP] < {所}\*

[公司的申訴管道/Agonist]常遭[不明人士/Antagonist][阻礙/Try to stop]，意見總是無法上傳。

*gōngsī de shēnsù guǎndào chángzāo bùmíngrènrshì zǔài yìjiàn zǒngshì wúfǎ shàngchuán*

company-DE querimony channel often ZAO unknown people ZUAI opinion always NEG upward deliver

‘The querimony channel of the company is often blocked by unknown people. Opinions are always not delivered to the higher authorities.’

e. Antagonist[NP] < {用/以/借} [Prep]+Instrument[NP]/Means[NP;VP] < \* < Agonist[NP] < (Intended act[VP])

[歹徒/Antagonist]借[人群/Instrument][阻擋/Try to stop]了[警衛的視線/Agonist]。

*dǎitú jiè rénquán zǔdǎng le jǐngwèi de shìxiàn*

evildoer by crowd ZUDANG-PERF security guard-DE sight

‘The evildoer (hided behind) the crowd that blocked the sight of the security guard.’

f. \*Dui

\*[我/Antagonist]對[他/Agonist][阻止/阻擋/Try to stop]。

*wǒ duì tā zǔzhǐ/zǔdǎng*

I to 3sg ZUZHI/ZUDANG

\*‘I hinder to him.’

It is interesting to see that in the majority cases, verbs in Try to stop frame describe social interactions in which an Agonist is forced by an Antagonist to move away from an Intended act as shown in defining pattern (a). However, in order to conform to the event structure of the UNILATERAL primary frame in which a Target act is typically addressed, verbs in Try to stop frame submit to the paradigm pressure and describe social interactions in which an Agonist is forced by an Antagonist to move toward a certain Target act that indicates the purpose of Antagonist's opposition as can be seen in defining pattern (b). This unique specialty of frame conformation is the signature of Try to stop basic frame.

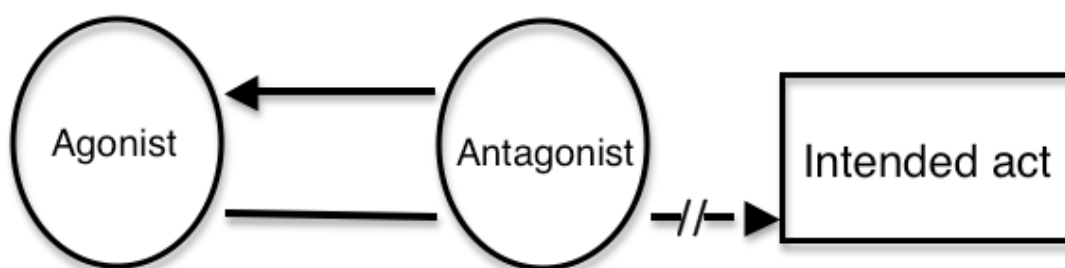
### 3.4.3 Unilateral Basic Frame3:Stopping Basic Frame

**Definition:** Verbs in this frame describe social interactions in which a highlighted Agonist is completely stopped by an Antagonist and is forced to move away from an Intended act.

**Lemma:** 中止 *zhōngzhǐ* “to discontinue,” 終止 *zhōngzhǐ* “to terminate,” 中斷 *zhōngduàn* “to discontinue,” 結束 *jiéshù* “to end,” 終結 *zhōngjié* “to terminate”

**Frame Elements:** Antagonist, Agonist, Intended act

**Conceptual Schema:**



**Defining Patterns:**

a. Antagonist[NP] < \* < Agonist[NP] < (Intended act[VP])

[這個病毒/Antagonist][中止/Stopping][我的防毒軟體/Agonist][掃到它/Intended act]。

*zhègè bìngdú zhōngzhǐ wǒ de fángdúruǎntǐ sǎo dào tā*

this virus ZHONGZHI my anti-virus software detect-PERF 3sg

‘This virus stopped my anti-virus software from detecting its existence.’

b. Agonist[NP] < \*

[團隊精神/Agonist]不會因計畫完成而[終止/Stopping]，

*tuánduì jīngshén búhuì yīn jìhuà wánchéng ér zhōngzhǐ*

team spirit would not because project accomplish therefore ZHONGZHI

‘The team spirit won’t stop/terminate as the project ends.’

c. Antagonist[NP] <把< Agonist[NP] < {暫時/永遠} < \*

[經建會主委蕭萬長/Antagonist]把[計畫/Agonist]暫時[中止/Stopping]了。

*Jīngjiàn huì zhǔwěi Xiǎowàn cháng bǎ jìhuà zhànshí zhōngzhǐ le*

Council for economic planning and development committee chairman

Xiaowanchang Ba project temporarily ZHONGZHI

‘Xiaowanchang, who is the committee chairman of the Council for economic planning and development, stopped the project temporarily.’

d. Agonist[NP] <受/為/遭< Antagonist[NP] < \*

[核廢運北韓/Agonist]屬商業行為不受[政治干擾/Antagonist][中止/Stopping]。

*héfèi yùn Běihán shǔ shāngyè xíngwéi búshòu zhèngzhì zhōngzhǐ*

nuclear waste transport North Korea belong businessdealing Neg-receive

political interruption ZHONGZHI

‘Transporting the nuclear waste to North Korea belongs to business dealings, which is not stopped by political interruptions.’

e. Antagonist[NP] < {用/以/憑}[Prep]+Instrument[NP]/Means[NP;VP] < \* < Agonist[NP] <(Intended act[VP])

[海山高中文祺/Antagonist]以[嬌小的身體/Instrument][終止/Stopping][淡商這一波的進攻/Agonist]。

*Hǎishān gāozhōng Wénchí yǐ jiāoxiǎo de shēntǐ zhōngzhǐ Dànshāng zhè yìpō de jìngōng*

Haishan High school Wenchi with little body ZHONGZHI Tam-shui vocational high school this-CL attack

‘Wenchi from Haishan High school stopped the attack called by Tam-shui vocational high school.’

f. \*Dui

\*[我/Antagonist]對[他/Agonist][終止/中止/Stopping]。

*wǒ duì tā zhōngzhǐ/zhōngzhǐ*

I to 3sg ZHONGZHI/ZHONGZHI

\*‘I stop to him.’

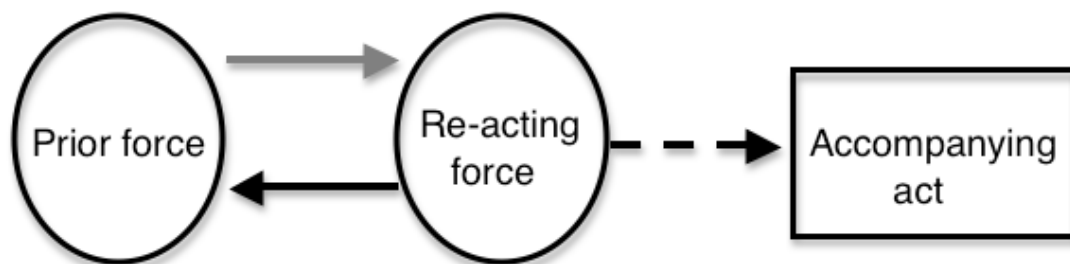
#### 3.4.4 Unilateral Basic Frame4:Counteractive forcing Basic Frame

**Definition:** Verbs in this frame describe counteractive social interactions in which a highlighted Re-acting force responds to a presupposed Prior force and sometimes performs an Accompanying act to be in association with the interaction.

**Lemma:** 反抗 *fǎnkàng* “to resist,” 抵抗 *dǐkàng* “to resist,” 抵擋 *dǐdǎng* “to withstand,” 抗拒 *kàngjù* “to resist,” 抵拒 *dǐjù* “to resist,” 拒抗 *jùkàng* “to resist,” 聽從 *tīngcóng* “to obey,” 順從 *shùncóng* “to submit to,” 遵從 *zūncóng* “to comply with”

**Frame Elements:** Re-acting force, Prior force, Accompanying act

**Conceptual Schema:**



**Defining Patterns:**

a. Re-acting force[NP] <({消極地/一味地}Manner[ADVP])<\* < Prior force[NP] < (, Accompanying act[VP])

[他/Re-acting][一味地/Manner][順從/Counteractive forcing][父母/Prior force] ,

*tā yí mèi dì shùn cóng fù mǔ*

3sg blindly SHUNCONG parents

‘He blindly complies with (the order from) his parents.’

b. Re-acting force[NP] <對 < Prior force[NP] < \*

[法輪功學員/Re-acting force]對[中共/Prior force][反抗/Counteractive forcing] ,

*Fǎlúngōng xuéyuán duì Zhōnggòng fǎnkàng*

Falungong members to the Chinese Communist Party FANKANG

‘The members of Falungong fight against (the oppression from) the Chinese Communist Party.’

c. Prior force[NP;CL] < Re-acting force[NP] < \*

[他人的意見/Prior force][你/Re-acting force]不一定要[聽從/Counteractive forcing] 。

*tā rén de yìjiàn nǐ bù yí dìng yào tīng cóng*

other people-DE opinion you NEG-necessary TINGCONG

‘As for opinions from other people, you don’t necessarily need to listen (to them).’

d. Prior force[NP] < {受/受到} < Re-acting[NP] <(Degree[ADVP]) <\*/\*+nom

[他/Prior force]拉扯被害人時，受到[被害人/Re-acting force][強烈/Degree][抵抗/Counteractive forcing] 。

*tā lāchě bèihàirén shí shòudào bèihàirén qiángliè dǐkàng*

3sg pull and drag victims while receive victims strong DIKANG

‘While pulling and dragging the victim, he received a strong resistance (from the victim).’

e. Re-acting force[NP] < {用/以} [Prep]+Instrument[NP]/Means[NP;VP] < \* <  
Prior force[NP] < (, Accompanying act[VP])

[她/Re-acting force][闔起眼/Means][**反抗/Counteractive forcing**][心裡的聲音  
/Prior force] , [不願再多想什麼/Accompanying act] ◦

*tā héqǐyǎn fǎnkàng xīnlǐ de shēngyīn búyuàn zài duō xiǎng shéme*

3sg close eyes FANKANG heart inside voice NEG-want again more think

‘She closed her eyes to resist the voice inside her heart, and was not willing to think about anything more.’

f. \*Ba

\*[我/Re-acting force]把[媽媽的命令/Prior force][**反抗/順從/Counteractive forcing**] ◦

*wǒ bǎ māmā de mìnglìng fǎnkàng/shùncóng*

I BA mother-DE order FANKANG/SHUNCONG

\*‘I resist/obey the order of my mother.’

### 3.4.5 Unilateral Basic Frame5: Assisting Basic Frame

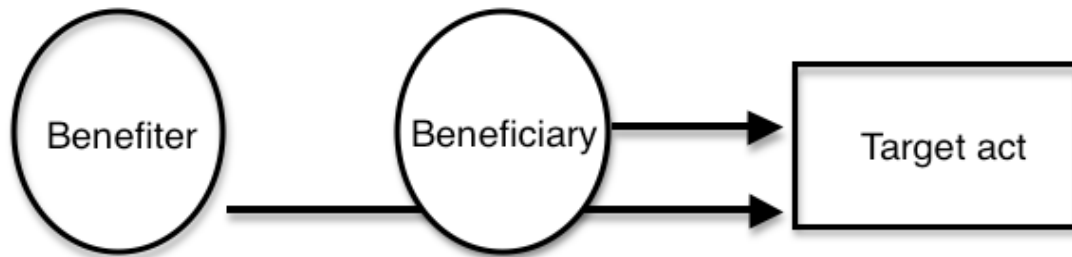
**Definition:** Verbs in this frame describe same directional social interactions in which a Benefiter (which is often omitted or is interpreted from the context) benefits the Beneficiary by helping or supporting (sometimes even performing) the Target act.

**Lemma:** 幫 *bāng* “to help,” 幫忙 *bāngmáng* “to help,” 幫助 *bāngzhù* “to help,” 援助 *yuánzhù* “to assist,” 扶助 *fúzhù* “to help,” 協助 *xiézhù* “to assist,” 輔助 *fǔzhù* “to assist,” 匡助 *kuāngzhù* “to help,” 支持 *zhīchí* “to support,” 扶持 *fúchí* “to support,” 扶植 *fúzhí* “to support,” 資助 *zīzhù* “to patronize,” 贊助 *zànzhù* “to sponsor,” 補助 *bǔzhù* “to subsidize”

**Frame Elements:** Benefiter, Beneficiary, Target act

**Conceptual Schema:**





### Defining Patterns:

a. Benefiter[NP] < \* < Beneficiary[NP] < (Target act[VP])

[居禮先生的父親/Benefiter]也[幫/Assisting][他們/Beneficiary][一起照顧孩子/Target act]。

*Jūlǐxi ānshēng de fùqīn yě bāng tāmen yìqǐ zhàogù háizi*

Curie mister DE father also BANG them together take care of the children  
‘Mister Curie’s father also helped them take care of the children together.’

b. Benefiter[NP] < 對 < Beneficiary[NP] < Degree[ADVP]{很/十分/特別} < \*+nom

[林漢章/Benefiter]對[做台灣史研究的人/Beneficiary]都[很/Degree][支持/Assisting+nom]。

*Línhànzhāng duì zuòTáiwānshǐ de rén dōu hěn zhīchí*

Linhanzhang to do Taiwan history-DE people all very ZHICHI

‘Linhanzhang is very supportive to all the people who do research on the history of Taiwan.’

c. Beneficiary[NP] < 由 < Benefiter[NP] < \* < (Target act[VP])

[老弱婦孺/Beneficiary]可由[工作人員/Benefiter][幫忙/Assisting][到達目的地/Target act]。

*lǎorùofūrú kě yóu gōngzuòrén yuán bāngmáng dàodá mùdìdì*

The elder, weak, women, and children can by staff BANGMANG get to destination

‘The elder, weak, women and children can be assisted by the staff to get to the destination.’

d. Beneficiary[NP] < {受/受到/受過/\*被/\*遭} < Benefiter[NP] < \*/\*+nom

[災民/Beneficiary]受到[大家/Benefiter]的[幫助/Assist+nom]，

*zāimín shòudào dàjiā de bāngzhù*

victim receive everybody-DE BANGZHU

‘The victims received the assistance from everyone.’

e. Benefiter[NP] < ({到/在} Place[NP]) < {用/以/靠}[Prep]+

Instrument[NP]/Means[NP;VP] < \* < Beneficiary[NP] < (Target act[VP])

[貞觀/Benefiter]一大早就到[外婆家/Place]用[鑷刀/Instrument][幫忙

/Assisting][割菜瓜/Target act]。

Zhēnguān yídǎo zǎo jùdào wàipó jiā yòng liándāo bāngmáng gē càiguā

Zhenguan early morning JIU to grandmother house by sickle cut snake melon  
'Zhenguan went to the grandmother's house early in the morning and helped to cut the snake melons with a sickle.'

f. \*Ba

\*[貞觀/Benefiter]把[外婆/Beneficiary][幫/幫助/Assisting]。

Zhēnguān bǎ wàipó bāng/bāngzhù

Zhenguan BA grandmother BANG/BANGZHU

\* 'Zhenguan helped her grandmother.'

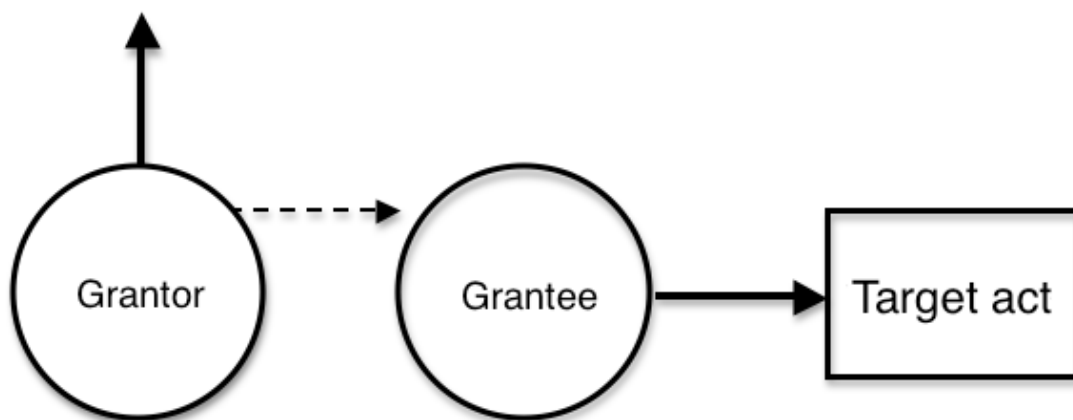
### 3.4.6 Unilateral Basic Frame6:Letting Basic Frame

**Definition:** Verbs in this frame describe social interactions in which a highlighted disengaging Grantor (usually an authoritative human) makes the way for the Grantee (usually a human) to move toward a Target act.

**Lemma:** 允讓 yǔnràng "to allow," 允許 yǔnxǔ "to allow," 准許 zhǔnxǔ "to permit," 同意 tóngyì "to agree to," 放任 fàngrèn "to let," 放縱 fàngzòng "to indulge," 縱容 zòngróng "to connive," 任憑 rènpíng "to let alone without restriction"

**Frame Elements:** Grantor, Grantee, Target act

**Conceptual Schema:**



**Defining Patterns:**

a. Grantor[NP] < \* < Grantee[NP] < (Target act[VP])

[媽媽/Grantor][放任/Letting][他/Grantee][哭鬧/Target act]。

māmā fàngrèn tā kūnào

Mother FANGREN 3sg cry noisily

'The mother let him cry noisily (without intervention).'

- b. Grantor[NP] <對 < Grantee[NP] < {表示/加以/予以/\*進行} < \*+nom  
 [老闆/Grantor]對[上述提議/Grantee]表示[同意/Letting+nom]。  
*lǎobǎn duì shàngshù tíyì biǎoshì tóngyì*  
 Boss to above proposal indicate TONGYI  
 ‘The boss indicated his permission to the proposals above.’
- c. Grantee[NP] <(Target act[VP]) < Grantor[NP] < \*  
 [一夫多妻/Grantee][我們的法律/Grantor]根本不[允許/Letting]。  
*yīfūduōqī wǒmén de fǎlù gēnběn bù yǔnxǔ*  
 One husband several wife our law at all NEG-YUNXU  
 ‘(The idea of) one husband with several wives is not permitted by our law.’
- d. Grantee[NP] <被/受/\*遭<Grantee[NP] < \* < (Target act[VP])  
 [阿斯巴甜/Grantor]在一九八一年被[美國食品藥物管理局/Grantee][允許  
 /Letting][上市/Target act]。  
*Āsībātián zài yījiǔbāyī nián bèi Měiguó shípǐngyàowùguǎnlǐjú yǔnxǔ shàngshì*  
 Aspartame in 1981 year BEI US Food and Drug Administration (F.D.A.)  
 YUNXU on the market  
 ‘Aspartame was allowed to be on the market by the US F.D.A. in 1981.’
- e. Grantor[NP] < Means[NP;VP]/\*Instrument[NP]< \* < Grantor[NP] < (Target  
 act[VP])  
 [老師/Grantor][點頭/Means][允許/Letting][我/Grantor][離開/Target act]。  
*lǎoshī diǎntóu yǔnxǔ wǒ líkāi*  
 Teacher nod YUNXU me leave  
 ‘The teacher allowed me to leave by nodding.’
- f. \*Ba  
 \*[我/Grantor]把[你Grantee][允許/放任/Letting]。  
*wǒ bǎ nǐ yǔnxǔ/fàngrèn*  
 I BA you YUNXU/FANGREN  
 \*‘I allow/let you.’

### 3.4.7 Summary of Basic Frames under Unilateral Primary Frame

This section summarizes the six basic frames under Unilateral primary frame as shown in table (3) below:

Basic Frame	Frame Elements	Defining Patterns
Forcing	Antagonist, Agonist,	a. Antagonist<({故意/刻意})<*<Agonist <(Target act)

	<p>Target act</p> <p>(Highlight the disposal and the affectiveness of the Antagonist)</p>	<p>[民主黨/Antagonist]刻意[迫使/Forcing][眾議院/Agonist][進行表決/Target act]。</p> <p>b. Antagonist&lt;把&lt;Agonist&lt;*&lt;Target act [保守派人士/Antagonist]努力把[柯爾/Agonist][逼/Forcing][下台/Target act]。</p> <p>c. Agonist&lt;被/遭/為/遭到 &lt;Antagonist&lt;*&lt;(Target act) [報社/Agonist]被[獨裁者/Antagonist][強迫/Forcing][歇業/Target act]。</p> <p>d. Antagonist&lt;{用/以/靠}Instrument/Means&lt;*&lt;Agonist&lt;(Target act) [外國/Antagonist]用[槍砲/Instrument][強迫/Forcing][清朝政府/Agonist][開放港口通商/Target act]。</p> <p>e. (x) Dui</p>
<p>Try to stop</p>	<p><u>Antagonist</u>, Agonist, Intended act, <u>Target act</u></p> <p>(Highlight the the Antagonist and its purpose of why stopping the event via Frame conformation)</p>	<p>a. Antagonist&lt;({企圖/試圖/打算})&lt;*&lt;Agonist&lt;(Intended act) [大學聯招會/Antagonist]試圖[阻擋/Try to stop][各媒體/Agonist][統計錄取率/Intended act]，</p> <p>b. Antagonist&lt;*&lt;Agonist&lt;Target act [巴國/Antagonist]企圖[阻止/Try to stop][柯林頓/Agonist][不要過分親近北京/Target act]。</p> <p>c. Antagonist&lt;(Means)&lt;把&lt;Agonist&lt;*&lt; [警方/Antagonist][部屬警力/Means]把[反核人士/Agonist][阻擋/Try to stop]在外。</p> <p>d. Agonist&lt;{被/為/遭/遭到}&lt;Antagonist&lt;{所}* [公司的申訴管道/Agonist]常遭[不明人士/Antagonist][阻礙/Try to stop]，意見總是無法上傳。</p> <p>e. Antagonist&lt;{用/以/借}Instrument/Means&lt;*&lt;Agonist&lt;(Intended act) [歹徒/Antagonist]借[人群/Instrument][阻擋/Try to stop]了[警衛的視線/Agonist]。</p>

		f. (x) Dui
Stopping	Antagonist, <u>Agonist</u> , Intended act  (Highlight the affected agonist)	a. Antagonist<*<Agonist<(Intended act) [這個病毒/Antagonist][中止/Stopping][我的 防毒軟體/Agonist][掃到它/Intended act]。 b. Agonist< * [團隊精神/Agonist]不會因計畫完成而[終止 /Stopping]， c. Antagonist<把< Agonist<{暫時/永遠}< * [經建會主委蕭萬長/Antagonist]把[計畫 /Agonist]暫時[中止/Stopping]了。 d. Agonist<受/為/遭<Antagonist< * [核廢運北韓/Agonist]屬商業行為不受[政治 干擾/Antagonist][中止/Stopping]。 e. Antagonist<{用/以/ 憑}Instrument/Mean< * <Agonist<Intended act [海山高中文祺/Antagonist]以[嬌小的身體 /Instrument][終止/Stopping][淡商 /Agonist][這一波的攻勢/Intended act]。 f. (x) Dui
Counteractive forcing	<u>Re-acting force</u> , Prior force, Accompanying act  (Highlight the force-taking Re-acting force)	a. Re-acting force<(Manner{消極地/一昧 地})<*<Prior force<(, Accompanying act) [他/Re-acting][一昧地/Manner][順從 /Counteractive forcing][父母/Prior force]， b. Re-acting force<對<Prior force< * [法輪功學員/Re-acting force]對[中共/Prior force][反抗/Counteractive forcing]， c. Prior force<Re-acting force< * [他人的意見/Prior force][你/Re-acting force] 不一定要[聽從/Counteractive forcing]。 d. Prior force<{受/受 到}<Re-acting<(Degree)<*/*+nom [他/Prior force]拉扯被害人時，受到[被害人 /Re-acting force][強烈/Degree][抵抗 /Counteractive forcing]。 e. Re-acting force<{用/以}Instrument/Means <*<Prior force<(, Accompanying act) [她/Re-acting force][闔起眼/Means][反抗

		<p>/Counteractive forcing][心裡的聲音 /Prior force]，[不願再多想什麼/Accompanying act]。</p> <p>f. (x) Ba</p>
Assisting	<p><u>Benefiter</u>, <u>Beneficiary</u>, Target act</p> <p>(Highlight the need-possessing Beneficiary that is benefited from the interaction)</p>	<p>a. Benefiter&lt;*&lt;Beneficiary&lt;(Target act) [居禮先生的父親/Benefiter]也[幫 /Assisting][他們/Beneficiary][一起照顧孩子 /Target act]。</p> <p>b. Benefiter&lt;對&lt;Beneficiary&lt;Degree{很/十分/特別}&lt;*&lt;nom [林漢章/Benefiter]對[做台灣史研究的人 /Beneficiary]都[很/Degree][支持 /Assisting+nom]。</p> <p>c. Beneficiary&lt;由&lt;Benefiter&lt;*&lt;(Target act) [老弱婦孺/Beneficiary]可由[工作人員 /Benefiter][幫忙/Assisting][到達目的地 /Target act]。</p> <p>d. Beneficiary&lt;{受/受到/受過/* 被}&lt;Benefiter&lt;*&lt;nom [災民/Beneficiary]受到[大家/Benefiter]的 [幫助/Assist+nom]，</p> <p>e. Benefiter&lt;({到/在}Place)&lt;{用/以/靠}Instrument/Mean&lt;*&lt;Beneficiary&lt;(Target act) [貞觀/Benefiter]一大早就到[外婆家/Place]用[鐮刀/Instrument][幫忙/Assisting][割菜瓜 /Target act]。</p> <p>f. (x) Ba</p>
Letting	<p><u>Grantor</u>, Grantee, Target act</p> <p>(Highlight the Grantor, which is posturing itself by disengaging from the event)</p>	<p>a. Grantor&lt;*&lt;Grantee&lt;(Target act) [媽媽/Grantor]放任[他/Grantee][哭鬧/Target act]。</p> <p>b. Grantor&lt;對&lt;Grantee&lt;{表示/加以/予以}&lt;*&lt;nom [老闆/Grantor]對[上述提議/Grantee]表示[同意/Letting+nom]。</p> <p>c. Grantee&lt;(Target act)&lt;Grantor&lt;*&lt; [一夫多妻/Grantee][我們的法律/Grantor]根本不[允許/Letting]。</p>

		<p>d. Grantee&lt;被/受&lt;Grantee[NP]&lt; *&lt;(Target act)  [阿斯巴甜/Grantor]在一九八一年被[美國食品藥物管理局/Grantee][允許/Letting][上市/Target act]。</p> <p>e. Grantor&lt;Means/*Instrument&lt;*&lt;Grantor&lt;(Target act)  [老師/Grantor][點頭/Means][允許/Letting][我/Grantor][離開/Target act]。</p> <p>f. (x) Ba</p>
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Table (3): The overview of Basic Frames under Unilateral Primary Frame

The unilateral Social Interaction Verbs are classified by the six basic Frames under Unilateral Primary Frame. On the other hand, as we mentioned above, Mandarin also has bilateral Social Interaction Verbs and the basic frame of these verbs are shown as follows:

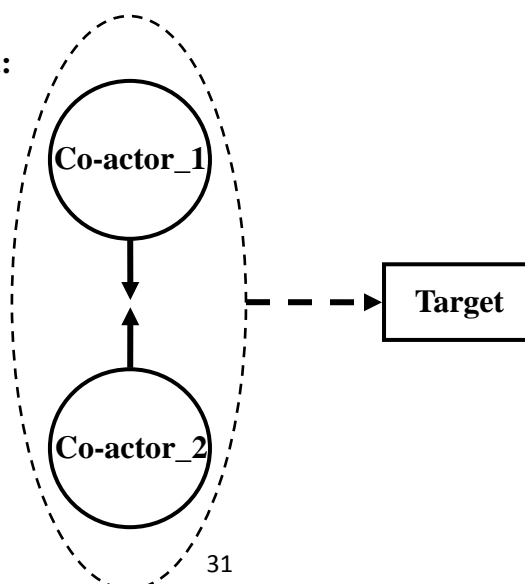
### 3.4.8 Bilateral Basic Frame1: Collaborate Basic Frame

**Definition:** Verbs in this frame describe mutually attractive social interactions in which Co-actor\_1 and Co-actor\_2 conjoin as Co-actors in order to obtain a Target\_entity or perform a Target\_act.

**Representative Lemma:** 合作 *hézuò* ‘collaborate’, 合夥 *tónghuǒ* ‘work in partnership’, 分工 *fēngōng* ‘division of labor’, 搭檔 *dādǎng* ‘be in partnership’, 結盟 *jiéméng* ‘form an alliance’, 同心協力 *tóngxīnxié lì* ‘pull together’

**Core Frame Elements:** Co-actor\_1, Co-actor\_2, Co-actors, Target\_entity, Target\_act

**Conceptual Schema:**



**Defining Patterns:**

(a) Co-actor\_1 [NP] < Conj {和/跟/與} < Co-actor\_2 [NP] < \* < (Target\_entity [NP] / Target\_act [VP])

[泰國/Co-actor\_1]與[美國「國際節約能源中心」/Co-actor\_2][合作/Collaborate][開發節電產品/Target\_act]。

*taiguo yu meiguo guoji jieyue nengyuan zhongxin hezuo kaifa jiedian chanpin*

(b) Co-actors [NP] < \* < (Target\_entity [NP] / Target\_act [VP])

[他們夫婦/Co-actors]曾[合作/Collaborate][譜寫了不少曲子哩/Target\_act]！

*tamen fufu ceng hezuo puxie-le bu shao quzi li*

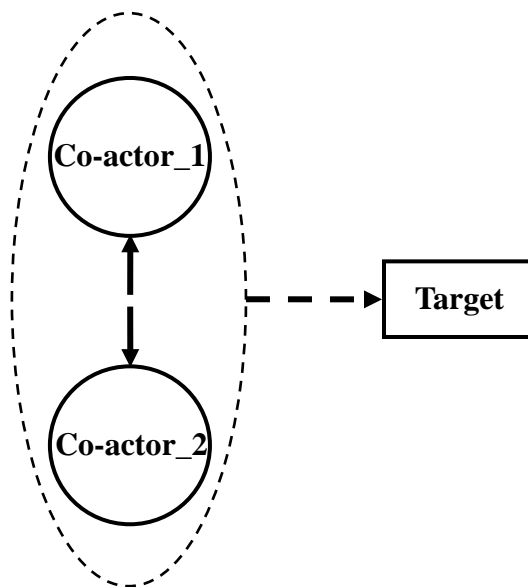
**3.4.9 Bilateral Basic Frame2: Compete Basic Frame**

**Definition:** Verbs in this frame describe mutually repulsive social interactions in which Co-actor\_1 and Co-actor\_2 conjoin as Co-actors in order to obtain a Target\_entity, perform a Target\_act, or win in a Target\_situation.

**Representative Lemma:** 競爭 *jìngzhēng* ‘compete’, 比賽 *bǐsài* ‘contest’, 交手 *jiāoshǒu* ‘fight with’, 角力 *jiǎolì* ‘wrestle’, 較量 *jiàoliàng* ‘contest’, 僵持 *jiāngchí* ‘refuse to budge’, 一較長短 *yíjiàochángduǎn* ‘compete’, 不相上下 *bùxiāngshàngxià* ‘match’, 僵持不下 *jiāngchíbúxià* ‘refuse to budge’, 分庭抗禮 *fēntíngkànglǐ* ‘compete on equal terms’

**Core Frame Elements:** Co-actor\_1, Co-actor\_2, Co-actors, Target\_entity, Target\_act, Target\_situation

**Conceptual Schema:**





### Defining Patterns:

(a) Co-actor\_1 [NP] < Conj {和/跟/與} < Co-actor\_2 [NP] < \* < (Target\_entity [NP] / Target\_act [VP] / Target\_situation [CL])

a. 前一陣子[臺大某系學生/Co-actor\_1]與[老教授/Co-actor\_2][競爭/Compete][研究室的使用權/Target\_entity]。

*qian yizhenzi taida mou xi xuesheng yu lao jiaoshou jingzheng yanjiushi de shiyong quan*

b. [這個不專心的小孩/Co-actor\_1]和[死黨/Co-actor\_2][比賽/Compete][誰能在電腦室待最久不離開/Target\_situation]。

*zhe-ge bu zhuanxin de xiaohai han sidang bisai shei neng zai diannaoshi dai zuijiu bu likai*

(b) Co-actors [NP] < \* < (Target\_entity [NP] / Target\_act [VP] / Target\_situation [CL])

a. 因為[各報社/Competitors]相互[競爭/Compete][訂戶市場/Target\_entity]。

*yinwei ge baoshe xianghu jingzheng dinghu shichang*

b. 瞧瞧[這兩個男孩/Competitors]，撿了個報廢的腳踏車輪子，在[比賽/Compete][誰滾得遠/Target\_situation]呢！

*qiaoqiao zhe liangge nanhai jian-le ge baofei de jiaotache lunzi zai bisai shei gun de yuan ne*

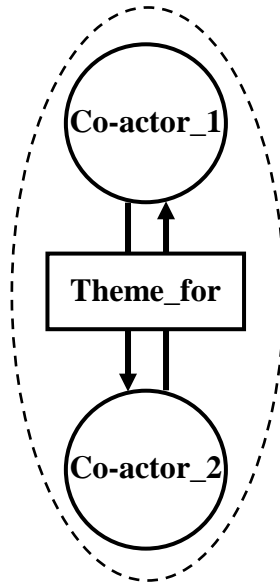
### 3.4.10 Bilateral Basic Frame 3: Interchange Basic Frame

**Definition:** Verbs in this frame describe mutual social interactions in which Co-actor\_1 and Co-actor\_2 conjoin as Co-actors and pass Theme\_for\_interchange on to each other.

**Representative Lemma:** 交流 *jiāoliú* ‘interact’, 交換 *jiāohuàn* ‘exchange’, 交易 *jiāoyì* ‘transact’, 分享 *fēnxiǎng* ‘share’

**Core Frame Elements:** Co-actor\_1, Co-actor\_2, Co-actors, Theme\_for\_interchange

**Conceptual Schema:**



**Defining Patterns:**

(a) Co-actor\_1 [NP] < Conj {和/跟/與} < Co-actor\_2 [NP] < \* < (Theme\_for\_interchange [NP])

[廿一名學生代表 /Co-actor\_1] 今日將與 [台北學子 /Co-actor\_2][交流 /Interchange][兩地的青少年政策、問題 /Theme\_for\_interchange]。

*ershiyi-ming xuesheng daibiao jinri jiang yu taibei xuezi jiaoliu liangdi de qingshaonian zhengce wenti*

(b) Co-actors [NP] < \* < (Theme\_for\_interchange [NP])

[各縣市學生 /Co-actors] 齊聚一堂 [交流 /Interchange][研究心得 /Theme\_for\_interchange]。

*ge xianshi xuesheng qijuyitang jiaoliu yanjiu xinde*

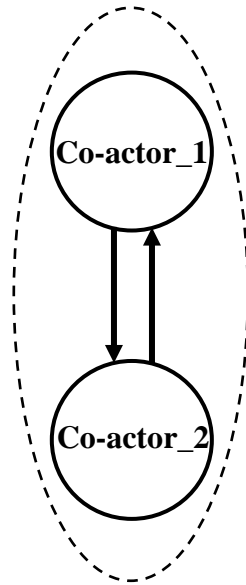
**3.4.11 Bilateral Basic Frame 4: Forming\_relationships Basic Frame**

**Definition:** Verbs in this frame describe mutual social interactions in which Co-actor\_1 and Co-actor\_2 conjoin as Co-actors to establish interpersonal relationships.

**Representative Lemma:** 互動 *hùdòng* ‘interact’, 相處 *xiāngchǔ* ‘get along’, 結婚 *jiéhūn* ‘marry’, 離婚 *líhūn* ‘divorce’, 交往 *jiāowǎng* ‘have relationship with’, 分手 *fēnshǒu* ‘part’, 見面 *jiànmiàn* ‘meet’, 碰面 *pèngmiàn* ‘meet’

**Frame Elements:** Co-actor\_1, Co-actor\_2, Co-actors

**Conceptual Schema:**



**Defining Patterns:**

(a) Co-actor\_1 [NP] < Conj {和/跟/與} < Co-actor\_2 [NP] < \* (< Duration [NP; AdvP])

由此可見，[政府 /Co-actor\_1] 與 [民間 /Co-actor\_2] 已經 [互動 /Forming\_relationships] 得很密切了。

*youcikejian zhengfu yu minjian yijing hudong de hen miqie le*

(b) Co-actors [NP] < \* (< Duration [NP; AdvP])

[雙方 /Co-actors][互動 /Forming\_relationships] 一向良好。

*shuangfang hudong yixiang lianghao*

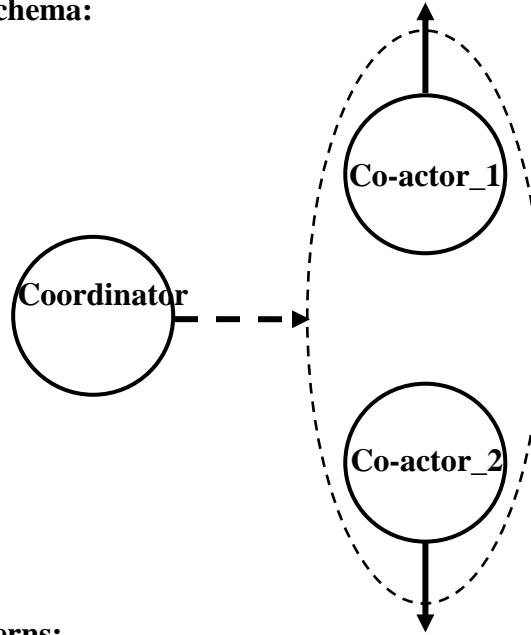
**3.4.12 Bilateral Basic Frame 5: Separate Basic Frame**

**Definition:** Verbs in this frame describe opposite force relations between Co-actor\_1 and Co-actor\_2/Co-actors that lead them out the joint party. There may or may not be a Coordinator exerting an external force upon Co-actor\_1 and Co-actor\_2/Co-actors.

**Representative Lemma:** 分開 *fēnkāi* ‘seperate’, 分離 *fēnlí* ‘seperate’,

**Frame Elements:** Co-actor\_1, Co-actor\_2, Co-actors, Coordinator

**Conceptual Schema:**



**Defining Patterns:**

(a) Co-actor\_1 [NP] < Conj {和/跟/與} < Co-actor\_2 [NP] < \*

九六年[查理王子/Co-actor\_1]也與[黛安娜王妃/Co-actor\_2][分開/Seperate]。

*jiuliunian chali wangzi ye yu daianna wangfei fenkai*

(b) Co-actors [NP] < \*

後來因為外在壓力，內在的因素，[他們/Co-actors][分開/Seperate]了。

*houlai yinwei waizai yali neizai de yinsu tamen fenkai le*

(c) Coordinator < 把/將 < Co-actor\_1 [NP] < Conj {和/跟/與} < Co-actor\_2 [NP] < \*

[我們/Coordinator]把[財委會/Co-actor\_1]與[黨營事業/Co-actor\_2][分開/Seperate]，

*women ba caiweihui yu dangying shiye fenka*

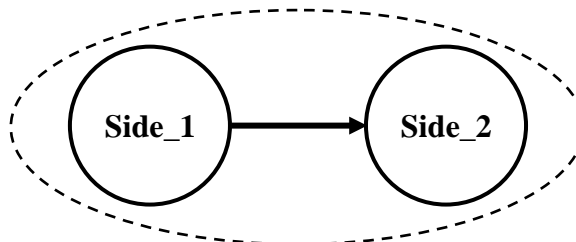
**3.4.13 Bilateral Basic Frame 6: Oppose Basic Frame**

**Definition:** Verbs in this frame describe Side\_1 agentively exerts a force upon Side\_2 and conjoin as a joint party in order to perform a Target\_act.

**Representative Lemma:** 對抗 *duìkàng* ‘oppose’, 抗衡 *kànghéng* ‘match’

**Frame Elements:** Side\_1, Side\_2, Sides

**Conceptual Schema:**



**Defining Patterns:**

(a) Side\_1 [NP] < Conj {和/跟/與} < Side\_2 [NP] < \*

[沒有一個夠大的國家/Side\_1]願意與[中共這個強大力量/Side\_2][對抗/Oppose]。

meiyou yi-ge gou da de guojia yuanyi yu zhonggong zhe-ge  
qiangda liliang duikang

(b) Co-actors [NP] < \*

[兩岸/Sides]在[外交/Ground]上[對抗/Oppose]。

liangan zai waijiao shang duikang

(c) Co-actor\_1 [NP] < \* < Co-actor\_2 [NP]

[袁叔琪/Side\_1]在[冠軍戰/Ground][對抗/Oppose][南韓金文貞/Side\_2]。

yuanshuqi zai guanjunzhan duikang nanhan jinwenzhen

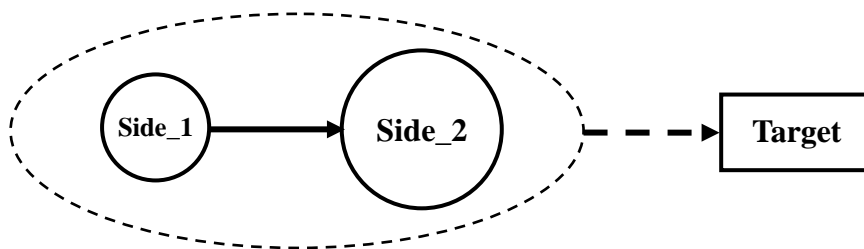
**3.4.14 Bilateral Basic Frame7: Contact Basic Frame**

**Definition:** Verbs in this frame describe a less prominent Side\_1 agentively exerts a force upon a Side\_2 and conjoin as a joint party in order to perform a Target\_act.

**Representative Lemma:** 配合 pèihé ‘coordinate’, 接觸 jiēchù ‘contact’, 搭配 dāpèi ‘collocate’, 配搭 pèidā ‘complement each other’, 認識 rènshi ‘know’, 聯絡 liánluò ‘liaise’

**Frame Elements:** Side\_1, Side\_2, Sides, Target\_act

**Conceptual Schema:**



**Defining Patterns:**

(a) Side\_1 [NP] < Conj {和/跟/與} < Side\_2 [NP] < \*

最重要的，是[學生/Side\_1]與[我們的工作人員/Side\_2]要能相互[配合/Contact]。

zui zhongyao de shi xuesheng yu women de gongzuorenyuan  
yao neng xianghu peihe

(b) Sides [NP] < \*

檢警單位向來重視職棒賭博案，並依法辦理，希望今後[雙方/Sides]密切[配合/Contact]。

*jianjing danwei xianglai zhongshi zhibang dubo an xiwang jinhou  
shuangfang miqie peihe*

(c) Side\_1 [NP] < \* < Side\_2 < (Target\_act [VP])

[本院/Side\_1][配合/Contact][「國家滅鼠運動」/Side\_2][實施毒餌之置放/Target\_act]。

*benyuan peihe guojia mieshu yundong shishi duer zhi zhifang*

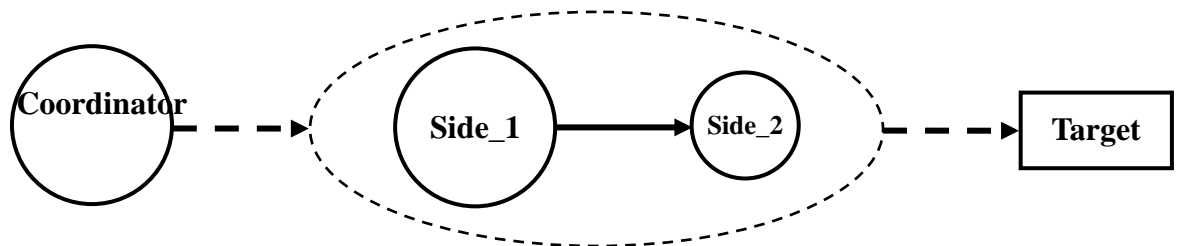
### 3.4.15 Bilateral Basic Frame8:Combine Basic Frame

**Definition:** Verbs in this frame describe a more prominent Side\_1 agentively exerts a force upon a Side\_2 and conjoin as a joint party in order to perform a Target\_act. There may or may not be a Coordinator exerting an external force upon both Side\_1 and Side\_2 and conjoin them as a joint party.

**Representative Lemma:** 結合 *jiéhé* ‘combine, integrate’, 聯合 *liánhé* ‘unite’, 團結 *tuánjié* ‘unite’, 連結 *liánjié* ‘connect’, 聯結 *liánjié* ‘joint’, 合併 *hébìng* ‘merge’

**Frame Elements:** Side\_1, Side\_2, Sides, Coordinator, Target\_act

**Conceptual Schema:**



**Defining Patterns:**

(a) Side\_1 [NP] < Conj {和/跟/與} < Side\_2 [NP] < \*

以至明、清，[其藝術作品/Side\_1]已與[人們日常生活節慶/Side\_2]相[結合/Combine]。

*yi zhi ming qing qi yishu zuopin yi yu renmen richang  
shenghuo jieqing xiang jiehe*

(b) Sides [NP] < \*

或許可以說，[這些風雲人物/Sides]正是以[曹操為樞紐/Means]而[結合/Combine]。

*huoxu keyi shuo zhexie fengyun renwu zhengshi yi caocao wei  
shuniu er jiehe*

(c) Side\_1 [NP] < \* < Side\_2 < (Target\_act [VP])

於是[醫生/Side\_1]到處陳述革命理想及富國強兵之道，同時[結合/Combine][一批志同道合的年輕人/Side\_2]，[一起推翻政府/Target\_act]。

*yushi yisheng dao chu chenshu geming lixiang ji fuguoqiangbing*

*zhi dao tongshi jiehe yipi zhitongdaohe de nianqingren yiqi tuifan jiu zhengfu*

(d) Coordinator < \* < Side\_1 [NP] < Conj {和/跟/與} < Side\_2 [NP] < (Target\_act [VP])

[台中縣弘光科技大學藝術中心/Coordinator][結合/Combinbe][飲茶/Side\_1]和[陶藝文化/Side\_2]，[展出「壺之美--台灣當代陶藝壺展」/Target\_act]。

*taizhongxian hongguangkejidaxue yishuzhongxin jiehe yincha han taoyi wenhua zhanchu hu zhi mei taiwan dangdai taoyi hu zhan*

(e) Coordinator < 把/將 < Side\_1 [NP] < Conj {和/跟/與} < Side\_2 [NP] < \* < (Target\_act [VP])

唯有[很懂電腦，又很懂紅樓夢的人/Coordinator]才能將[科技/Side\_1]與[文學/Side\_2]真正的[結合/Combine]。

*wei you hen dong diannaoyou hen dong hongloumeng de ren cai neng jiang keji yu wenxue zhenzheng de jiehe*

### 3.4.16 Bilateral Basic Frame 9: Verbal Interaction Basic Frame

Verbs in this basic frame get multiple inheritances from both Bilateral frame and Conversation frame, which will not be focused in this study. For detailed analysis of Conversation frame, please see Chiang (2006).

### 3.4.17 Overview of the Frames and Frame Categorization

An overview of the frames and frame categorization under the scope of Mandarin social interaction verbs are shown in Table (4) and (5) below:

Archiframe	Primary Frame	Basic Frame	Lemma
Force Interaction	Bilateral	Collaborate	合作, 合夥, 分工, 搭檔, 結盟, 同心協力
		Compete	競爭, 比賽, 交手, 角力, 較量, 僵持, 一較長短, 不相上下, 僵持不下, 分庭抗禮
		Interchange	交流, 交換, 交易, 分享

		Forming relationships	互動, 相處, 結婚, 離婚, 交往, 分手, 見面, 碰面
		Separate	分開, 分離
	<b>Multiple Inheritance</b> from <b>Bilateral</b> and <b>Unilateral</b>	Oppose	對抗, 抗衡
		Contact	配合, 接觸, 搭配, 配搭, 聯絡
		Combine	結合, 聯合, 連結, 聯結, 合併
	<b>Unilateral</b>		強迫, 阻止, 中止, 反抗, 幫助, 允許

Table (4): Overview of the frames

### 3.4.18 Summary of Basic Frames under Bilateral Primary Frame

As the table shows, Mandarin social interaction verbs can be divided into different groups according to the status of participants, the distinct sets of frame elements, and the syntactic patterns of the frame elements. In this study, conceptual schemas in terms of force relations are also provided to help understanding the reciprocity of social interaction events. Moreover, cross-frame lemmas are proposed and well-accommodated by inheritance from both Bilateral and Unilateral Primary frames. Based on all the findings, Mandarin social interaction verbs are classified and analyzed into a hierarchical structure from the perspective of Frame Semantics (Fillmore and Atkins 1992). Four-layered working taxonomy illustrates the semantic and grammatical features of the verbs in an organized and systematic way

Primary Frame	Basic Frame	Lemma	Core Frame Elements	Defining Patterns
<b>Bilateral</b>	Collaborate	合作 合夥 分工 搭檔 結盟 同心協力	Co-actor_1 Co-actor_2 Co-actors Target_act Target_entity	(a) Co-actor_1 [NP] < Conj {和/跟/與} < Co-actor_2 [NP] < * < (Target_entity [NP] / Target_act [VP]) [泰國/Co-actor_1]與[美國「國際節約能源中心」/Co-actor_2][合作/Collaborate][開發節電產品/Target_act]。



			<p><b>(b) Co-actors [NP] &lt; * &lt; (Target_entity [NP] / Target_act [VP])</b>  [他們夫婦/Co-actors]曾[合作/Collaborate][譜寫了不少曲子哩/Target_act]!</p>
Compete	<p>競爭  比賽  交手  角力  較量  僵持  一較長短  不相上下  僵持不下  分庭抗禮</p>	<p>Co-actor_1  Co-actor_2  Co-actors  Target_act  Target_entity  Target_situation</p>	<p><b>(a) Co-actor_1 [NP] &lt; Conj {和/跟/與} &lt; Co-actor_2 [NP] &lt; * &lt; (Target_entity [NP] / Target_act [VP] / Target_situation [CL])</b>  a. 前一陣子[臺大某系學生/Co-actor_1]與[老教授/Co-actor_2][競爭/Compete][研究室的使用權/Target_entity]。  b. [這個不專心的小孩/Co-actor_1]和[死黨/Co-actor_2][比賽/Compete][誰能在電腦室待最久不離開/Target_situation]。  <b>(b) Co-actors [NP] &lt; * &lt; (Target_entity [NP] / Target_act [VP] / Target_situation [CL])</b>  a. 因為[各報社/Competitors]相互[競爭/Compete][訂戶市場/Target_entity]。  b. 瞧瞧[這兩個男孩/Competitors]，撿了個報廢的腳踏車輪子，在[比賽/Compete][誰滾得遠/Target_situation]呢!</p>
Interchange	<p>交流  交換  交易  分享</p>	<p>Co-actor_1  Co-actor_2  Co-actors  Theme_for_interchange</p>	<p><b>(a) Co-actor_1 [NP] &lt; Conj {和/跟/與} &lt; Co-actor_2[NP]&lt; * &lt; (Theme_for_interchange [NP])</b>  [廿一名學生代表/Co-actor_1]今日將與[台北學子/Co-actor_2][交流/Interchange][兩地的青少年政策、問題/Theme_for_interchange]。  <b>(b)Co-actors[NP]&lt; * &lt; (Theme_for_interchange [NP])</b>  [各縣市學生/Co-actors]齊聚一堂[交流/Interchange][研究心/Theme_for_interchange]。</p>
Forming_relationship	<p>互動  相處</p>	<p>Co-actor_1  Co-actor_2</p>	<p><b>(a) Co-acotr_1 [NP] &lt; Conj {和/跟/與} &lt; Co-actor_2 [NP] &lt; * (&lt; Duration [NP];</b></p>

	s	結婚 離婚 交往 分手 見面 碰面	Co-actors Duration	<b>AdvP])</b> 由此可見，[政府/Co-actor_1]與[民間/Co-actor_2]已經[互動/Forming_relationships]得很密切了。 <b>(b) Co-actors [NP] &lt; * (&lt; Duration [NP; AdvP])</b> [雙方/Co-actors][互動/Forming_relationships]一向良好。
	Separate	分開 分離	Coordinator Co-actor_1 Co-actor_2 Co-actor2	<b>(a) Co-actor_1 [NP] &lt; Conj {和/跟/與} &lt; Co-actor_2 [NP] &lt; *</b> 九六年[查理王子/Co-actor_1]也與[黛安娜王妃/Co-actor_2][分開/Seperate]。 <b>(b) Co-actors [NP] &lt; *</b> 後來因為外在壓力，內在的因素，[他們/Co-actors][分開/Seperate]了。 <b>(c) Coordinator &lt; 把/將 &lt; Co-actor_1 [NP] &lt; Conj {和/跟/與} &lt; Co--actor_2 [NP] &lt; *</b> [我們/Coordinator]把[財委會/Co-actor_1]與[黨營事業/Co-actor_2][分開/Seperate]，
<b>Multiple Inheritance from Bilateral and Unilateral</b>	Oppose	對抗 抗衡	Side_1 Side_2 Sides	<b>(a) Side_1 [NP] &lt; Conj {和/跟/與} &lt; Side_2 [NP] &lt; *</b> [沒有一個夠大的國家/Side_1]願意與[中共這個強大力量/Side_2][對抗/Oppose]。 <b>(b) Co-actors [NP] &lt; *</b> [兩岸/Sides]在[外交/Ground]上[對抗/Oppose]。 <b>(c) Co-acotr_1 [NP] &lt; * &lt; Co-actor_2 [NP]</b> [袁叔琪/Side_1]在[冠軍戰/Ground][對抗/Oppose][南韓金文貞/Side_2]。
	Contact	配合 接觸 搭配 配搭 聯絡	Side_1 Side_2 Sides Target_act	<b>(a) Side_1 [NP] &lt; Conj {和/跟/與} &lt; Side_2 [NP] &lt; *</b> 最重要的，是[學生/Side_1]與[我們的工作人員/Side_2]要能相互[配合/Contact]。 <b>(b) Sides [NP] &lt; *</b> 檢警單位向來重視職棒賭博案，並依法辦理，希望今後[雙方/Sides]密切[配合

				<p>/Contact]。</p> <p>(c) <b>Side_1 [NP] &lt; * &lt; Side_2 &lt; (Target_act [VP])</b>          [本院/Side_1][配合/Contact][「國家滅鼠運動」/Side_2][實施毒餌之置放/Target_act]。</p>
Combine	結合 聯合 連結 聯結 合併	Coordinator Side_1 Side_2 Sides Target_act		<p>(a) <b>Side_1 [NP] &lt; Conj {和/跟/與} &lt; Side_2 [NP] &lt; *</b>          以至明、清，[其藝術作品/Side_1]已與[人們日常生活節慶/Side_2]相[結合/Combine]。</p> <p>(b) <b>Sides [NP] &lt; *</b>          或許可以說，[這些風雲人物/Sides]正是以[曹操為樞紐/Means]而[結合/Combine]。</p> <p>(c) <b>Side_1 [NP] &lt; * &lt; Side_2 &lt; (Target_act [VP])</b>          於是[醫生/Side_1]到處陳述革命理想及富國強兵之道，同時[結合/Combine][一批志同道合的年輕人/Side_2]，[一起推翻政府/Target_act]。</p> <p>(d) <b>Coordinator &lt; * &lt; Side_1 [NP] &lt; Conj {和/跟/與} &lt; Side_2 [NP] &lt; (Target_act [VP])</b>          [台中縣弘光科技大學藝術中心/Coordinator][結合/Combine][飲茶/Side_1]和[陶藝文化/Side_2]，[展出「壺之美--台灣當代陶藝壺展」/Target_act]。</p> <p>(e) <b>Coordinator &lt; 把/將 &lt; Side_1 [NP] &lt; Conj {和/跟/與} &lt; Side_2 [NP] &lt; * &lt; (Target_act [VP])</b>          唯有[很懂電腦，又很懂紅樓夢的人/Coordinator]才能將[科技/Side_1]與[文學/Side_2]真正的[結合/Combine]。</p>

Table (5): Frame categorization under the scope of Mandarin social interaction verbs

### 3.5 Layer 4: Microframe

Some further research on microframes of unilateral force are done based on Liu

and Chiang (2008), which proposed that a basic frame can be further divided into Microframes with a finer specification of role-internal features, that is, the role-internal specifications of frame elements inherited from the basic frame.

In the present study, semantic attributes, frame elements, collocations, and event structures are used in determining various microframes of unilateral force. There are thirteen microframes, namely Make, Compel, Hinder, Prevent, Discontinue, Terminate, Counter, Comply, Help, Support, Do\_For, Allow, and Let alone frame. Diagram (4) shows the relation in layers.

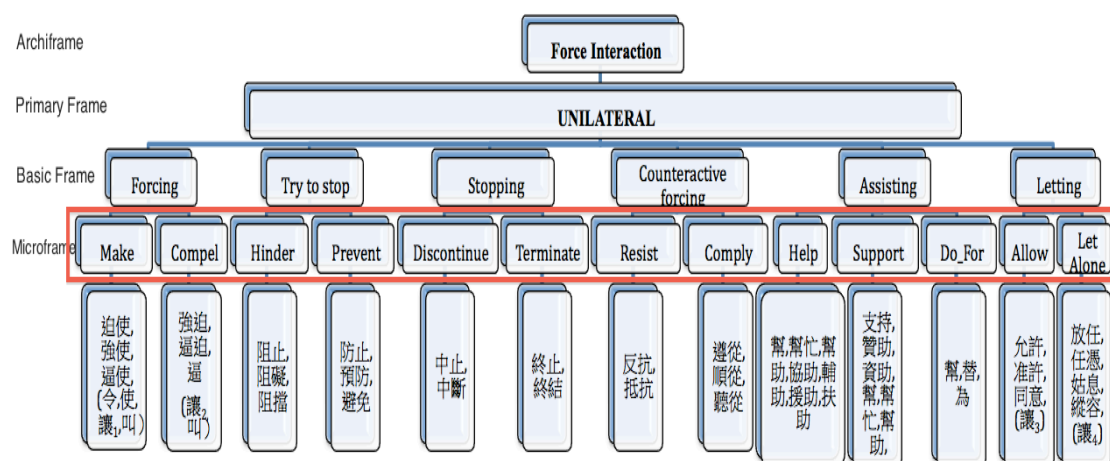


Diagram (4): The Microframes under each Basic Frame

### 3.5.1 Microframes under Forcing Basic Frame

A small portion of Mandarin SIVs does encode the result of force competition. Verbs in Forcing basic frame are divided into Make microframe and Compel microframe depending on whether the manipulation is successful or not.

<b>Make microframe</b> (successful manipulation)	迫使 <i>pòshǐ</i> “to make,” 強使 <i>qiángshǐ</i> “to make,” 逼使 <i>bīshǐ</i> “to make,”
<b>Compel microframe</b> (attempted manipulation)	逼迫 <i>bīpò</i> “to force,” 強迫 <i>qiángpò</i> “to force,” 逼 <i>bī</i> “to force,” 強逼 <i>qiángbī</i> “to force,”

Lemmas in Make microframe, being similar to “Strong manipulation verbs” defined by Givon (1993), tend to signal the end point realization of a social interaction. However, verbs in Make microframe are not the direct translation of the English verb *make*. Givon (1993) proposed that the complement VP of the English verb *make* has to be a bare verb (i.e. He made me leave/\*to leave/\*leaving) because *make* in English denotes a “co-temporal” and “co-spacial” relation between the main

and the secondary events. Lemmas in Make microframe in Mandarin, even though most of the time sharing the same co-temporality, can sometime denote two events that are relatively not so co-temporal as shown in (86) below. The complement VP is marked by the irrealis marker 要 *yao*. Moreover, lemmas in Make microframe often collocate with adverbs such as 一直/不斷/一次又一次 *yìzhí/búduàn/yíci yòu yíci* ‘again and again.’

On the other hand, lemmas in Compel microframe are similar to the weak manipulation verb *force* in English (Givon 1993). They tend to denote a durative force manipulation by collocating with progressive aspectual markers such as 正/正在/在 *zhèng/zhèngzài/zài* or being modified by a duration phrase such as 三天 *sāntiān* ‘three days.’

- (3) [他/Antagonist][一次又一次/迫使/Forcing][青少年/Agonist][要加入幫派/Target act]，造成許多社會問題。  
*tā yíci yòu yíci pòshǐ qīngshàonián yào jiārù bāngpài zàochéng xǔduō shèhuì wèntí*  
 3sg again and again POSHI teenager to join gang cause many social problems  
 ‘He continuously makes teenagers join the gang, which causes many social problems.’
- (4) [老媽/Antagonist][逼/\*迫使/Forcing][弟弟/Agonist] (逼/\*迫使了)[三天/Duration]，他還是不打掃自己的房間。  
*lǎomā bī/\*pòshǐ dìdì bī/\*pòshǐ le sāntiān tā hái shì bù dǎsǎo zìjǐ de fángjiān*  
 Old mom BI younger brother BI-LE three day 3sg still NEG-clean his own room  
 ‘(My mom) has forced (my) younger brother for three days, but he is still not going to clean his own room.’

### 3.5.2 Microframes under Try to stop Basic Frame

There are two microframes under Try to stop basic frame: Hinder frame and Prevent frame. They are separated based on what event structure they encode. Lemma in Hinder frame denotes social interaction in which an entity (who does a certain act) or an event is potentially hindered whereas lemma in Prevent frame encodes social interaction in which only an event is avoided from happening. This speciality makes verbs under Prevent frame obligatorily take a complement VP.

<b>Hinder Microframe</b>	阻止 <i>zǔzhǐ</i> “to restrain,” 阻擋 <i>zǔdǎng</i> “to block,” 阻礙 <i>zǔài</i>
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(entity/event oriented)	“to hinder,” 制止 <i>zhìzhǐ</i> “to stop,” 遏止 <i>èzhǐ</i> “to stop,” 遏制 <i>èzhì</i> “to stop,” 阻撓 <i>zǔnáo</i> “to hinder,” 攔阻 <i>lánzǔ</i> “to hinder”
<b>Prevent Microframe</b> (event oriented)	預防 <i>yùfáng</i> ‘to prevent,’ 防止 <i>fángzhǐ</i> “to prevent,” 避免 <i>bìmiǎn</i> “to avoid”

(5) a. [平地人/Antagonist][**阻止/Try to stop**][山地居民/Agonist][獨立自主/Intended act]。

*píngdìrén zǔzhǐ shāndì jūmín dúlì zìzhǔ*

plain men ZUZHI mountain resident independent

‘People who live in the plain stopped the mountain residents from being independent.’

b. [平地人/Antagonist][**阻止/Try to stop**][山地居民/Agonist]。

*píngdìrén zǔzhǐ shāndì jūmín*

plain men ZUZHI mountain resident

‘People who live in the plain stopped the mountain residents.’

(6) a. [政府/Antagonist][積極/Manner][**防止/Try to stop**][醫生/Agonist][偽造民眾就醫記

錄/Intended act]。

*Zhèngfǔ jījí fángzhǐ yīshēng wěizào mínzhòng jùuyījìlù*

Government actively FANGZHI doctor forge the public medical record

‘The government actively prevents the doctor from forging medical records of the public. (Whether or not the prevention is successful is unspecified.)’

b. \*[政府/Antagonist][積極/Manner][**防止/Try to stop**][醫生/Agonist]。

*Zhèngfǔ jījí fángzhǐ yīliáojīgòu wěizào mínzhòng jùuyījìlù*

Government actively FANGZHI doctor

\*‘The government actively prevents the doctor.’

### 3.5.3 Microframes under Stopping Basic Frame

Microframes under Stop basic frame are **Discontinue frame** and **Terminate frame**. They are distinguished according to whether the terminated situation is restartable or not. Discontinue frame indicates social interaction that is interrupted in the middle but is restartable at some point whereas Terminate frame encodes the end or the termination, which is completely stopped and not restartable.

<b>Discontinue Microframe</b> Event: <+restartable>	中止 <i>zhōngzhǐ</i> “to discontinue,” 中斷 <i>zhōngduàn</i> “to discontinue,”
<b>Terminate Microframe</b>	終止 <i>zhōngzhǐ</i> “to terminate,” 結束 <i>jiéshù</i> “to end,” 終

Event: <-restartable>	結 <i>zhōngjié</i> “to terminate,”
-----------------------	-----------------------------------

(7) Preverbal modification:

a. Antagonist < {暫時/意外/無預警/臨時}[ADVP] < \* < Agonist

[大英國協/Antagonist]暫時[中止/\*終止/Stop][辛巴威會籍/Agonist]，等其他領袖評估情勢，決定是否延長期限。

*Dà yīngguó xié zhànshí zhōngzhǐ/\*zhōngzhǐ Xīnbāwēi huìjí děng qítā lǐngxiù pínggū qíngshì juédìng shìfǒu yáncháng huìqí*

The Great Britain temporary ZHONGZHI/\*ZHONGZHI the Republic of Zimbabwe membership wait other leaders evaluate situation decide if extend time

‘The Great Britain temporary discontinued the membership of the Republic of Zimbabwe and waited for other leaders to evaluate the situation so as to decide whether the discontinuance is extended or not.’

b. Antagonist < {永遠/永久}[ADVP] \* < Agonist

如果菲國再背信，[我方/Antagonist]將永遠[終止/\*中止/Stop][中菲航約/Agonist]。

*rúguǒ fēiguó zài bèixìn wǒfāng jiāng zhōngzhǐ/\*zhōngzhǐ zhōngfēi hángyuē*

If the Philippines again break promise our side will forever ZHONGZHI/\*ZHONGZHI Sino-Phillippines navigation contract

‘If the Phillippines breaks the promise again, our side (our government) will end the Sino-Phillippines navigation contract for good.’

### 3.5.4 Microframes under Counteractive forcing Basic Frame

There are two microframes, namely Counter frame and Comply frame under the Counteractive forcing basic frame. Verbs in Counter frame denote social interactions that are more intense and effort-taking whereas verbs in Comply frame encode social interactions that require less effort. Verbs in Counter frame are more verbal and are often modified by adverbs such as 極力/奮力 *jíli/fènlì* ‘to strive/to spare no effort’ whereas verbs in Comply frame are more adverbial. Besides, with their verbal status, verbs in Comply frame are quite often modified by 只好/習慣 *zhǐhǎo/xíguàn* ‘to have no way but/to be used to.’

<b>Counter Microframe</b> (effort-taking reaction) (Verb status: more verbal)	反抗 <i>fǎnkàng</i> “to resist,” 抵抗 <i>dìkàng</i> “to resist,” 抵擋 <i>dǐdǎng</i> “to withstand,” 抗拒 <i>kàngjù</i> “to resist,” 抵拒 <i>dǐjù</i> “to resist,” 拒抗 <i>jùkàng</i> “to resist”
<b>Comply Microframe</b>	聽從 <i>tīngcóng</i> “to obey,” 順從 <i>shùncóng</i> “to submit

(reaction with less effort) (Verb status: less verbal)	to,” 遵從 <i>zūncóng</i> “to comply with”
---	---

(8) Preverbal modification:

a. Re-acting force < {極力/奮力/拼死/公然} [ADVP]<\*< Prior force < (, Accompanying act)

[猶太人/Re-acting force]拼死[反抗/\*聽從/Counteractive forcing][希特勒的迫害 Prior force]。

*Yóutàirén pīnsǐ fǎnkàng/\*tīngcóng Xītèlè de pòhài*

Jewish people to brave death FANKANG/\*TICONG Hitler-DE persecution  
‘The Jewish people fight against the persecution of Hetler with their lives.’

b. Re-acting force < {習慣/只好/默默}[ADVP]<\*< Prior force < (, Accompanying act)

[他/Re-acting force]習慣[順從/?反抗/Counteractive forcing][太太的每一句話/Prior force]，[連個氣兒也不敢出一聲/Accompanying act]。

*tā xíguàn shùncóng/?fǎnkàng tàitài de měi yījùhuà línage qièr yě bùgǎn chū yìshēng*

3sg is used to SHUNCONG/?FANKANG wife-DE every word even one word also NEG-dare say

‘He is used to obey every words from his wife and not even dares to say a word (to against her).’

(9) Adverbial modifier: \* (地) < VP

受不了牙痛的折磨，[孩子/Re-acting force]只好[順從/\*反抗/Counteractive forcing+nom]地就診。

*shòubùliǎo yátòng de zhémó háizi zhǐhǎo shùncóng/\*fǎnkàng dì jiùzhěn*

cannot bare toothache-DE torture child has no way but

SHUNCONG/\*FANKANG to see a doctor

‘The child had no way but submissively/\*resistantly went to see a doctor for the unbearable torture from the toothache.’

### 3.5.5 Microframes under Assisting Basic Frame

There are three subtypes of *help* in Mandarin depending on which force-exerting party gets to perform the Target act. The three subtypes indicate three microframes under Assisting basic frame, namely, Help frame, Support frame, and Do\_For frame. In Help frame, the Benefiter provides a direct enablement, so the Target act is performed by both Benefiter and Beneficiary. Verbs under Help frame usually collocate with a light verb 進行 *jìnxíng* (i.e. 大家對災民進行協助) or



undergo nominalization by collocating with 提供 *tígōng* ‘to provide’ (i.e.大家對災民提供協助).

Verbs under Support frame, on the other hand, denote a more indirect assistance exerted by the Benefiter in a more abstract fashion. These verbs undergo nominalization by collocating with 表示 *biǎoshì* ‘to express’ (i.e.黨員對他表示支持) They also, to a large degree, remain their verbal status modified by adverbs such as 精神上 *jīngshénshàng* ‘in spirit,’ or 原則上 *yuánzéshàng* ‘in principle’ (i.e.我精神上/原則上支持你創業).

Finally, verbs under Do\_For frame as discussed in 4.2 behavior more like Co-verbs indicating a favor-doing situation (i.e. 護士幫病人打針). No nominalization is found.

<p><b>Help Microframe</b> (Target act shared) Verb status: &lt;±nom&gt;</p>	<p>幫 <i>bāng</i> ‘to help,’ 幫忙 <i>bāngmáng</i> ‘to help,’ 幫助 <i>bāngzhù</i> ‘to help,’ 援助 <i>yuánzhù</i> ‘to assist,’ 扶助 <i>fúzhù</i> ‘to help,’ 協助 <i>xiézhù</i> ‘to assist,’ 輔助 <i>fǔzhù</i> ‘to assist,’ 匡助 <i>kuāngzhù</i> ‘to help’</p>
<p><b>Support Microframe</b> (Target act by Beneficiary) Verb status: &lt;±nom&gt;</p>	<p>支持 <i>zhīchí</i> ‘to support,’ 扶持 <i>fúchí</i> ‘to support,’ 扶植 <i>fúzhí</i> ‘to support,’ 資助 <i>zīzhù</i> ‘to patronize,’ 贊助 <i>zànzhù</i> ‘to sponsor,’ 補助 <i>bǔzhù</i> ‘to subsidize,’ 幫 <i>bāng</i> ‘to help,’ 幫忙 <i>bāngmáng</i> ‘to help,’ 幫助 <i>bāngzhù</i> ‘to help,’ 協助 <i>xiézhù</i> ‘to assist’</p>
<p><b>Do_For Microframe</b> (Target act for Beneficiary) Verb status: &lt;-nom&gt;</p>	<p>幫 <i>bāng</i> ‘to help,’ 替 <i>tì</i> ‘to substitute,’ 為 <i>wèi</i> ‘for/for the sake of’</p>

As shown above, there are some overlappings of the lemmas (i.e. 幫). It takes more information from the context to differentiate three microframes from one another, which corresponds to our argument that Mandarin depends highly upon collocations to create a certain context in which minor semantic differences are conveyed or interpreted.

### 3.5.6 Microframes under Letting Basic Frame

There are two microframes under Letting basic frame: Allow frame and Let alone frame. They are divided based on whether the Target act is on going or not when the Grantor comes into impingement. Allow frame denotes social interactions in which an authoritative entity (usually limited to a human, a political organization, a theory, or a law) grants permission to the Grantee (usually human) so that he/she can

set foot to perform a Target act after getting the permission. Let alone frame, on the other hand, encodes social interactions in which an entity (usually a human) decides to let go so that the Grantee (usually human) can carry on his or her Target action that is usually on going before the Grantor's impingement.

<p><b>Allow Microframe</b> (Target act to do) Grantor:[+authoritative] Register:[+formal]</p>	<p>允讓 <i>yǔnràng</i> “to allow,” 允許 <i>yǔnxǔ</i> “to allow,” 准許 <i>zhǔnxǔ</i> “to permit,” 同意 <i>tóngyì</i> “to agree to,”</p>
<p><b>Let alone Microframe</b> (Target act to continue) Grantor:[+unspecified] Register:[+unspecified]</p>	<p>放任 <i>fàngrèn</i> “to let,” 放縱 <i>fàngzòng</i> “to indulge,” 縱容 <i>zòngróng</i> “to connive,” 任憑 <i>rènpíng</i> “to let alone without restriction,” among others.</p>

(10) Grantee < { 未經/未獲/先經/得到 } < Grantor < \*/\*+nom < ({ 就/才 } ) < (Target act)

[他/Gtantee] 未經 [作者/Grantor] [**同意/\*放任/Letting**] 就 [將小說出版/Target act] 。

*tā wèijīng zuòzhě tóngyì/\*yǔnxǔ jiù jiāng xiǎoshuō chūbǎn*

3sg NEG-pass author TONGYI/\*YUNXU JIU BA novel publish

‘He published the novel without getting the permission/\*noninterference of the author.’

(11) Grantor < \* < Grantee < (Target act) < { 不管/不理 }

[政府/Grantor] [**放任/\*允許/Letting**] [官員/Grantee] [貪汙/Target act] 不管，

*zhèngfǔ fàngrèn/\*yǔnxǔ guānyuán tānwū bùguǎn*

government FANGREN/\*YUNXU the official to corrupt without interference

‘The government leaves/\*allows the official corruption alone without interference.’

### 3.5.7. Overview of the Frames

This section summarizes the frames introduced in previous sections. With a focus on Unilateral primary frame, there are six basic frames (Forcing, Try to stop, Stopping, Counteractive forcing, Assisting, and Letting) and thirteen microframes (Make, Compel, Hinder, Prevent, Counter, Comply, Help, Support, Do\_For, Allow, and Let alone). Table (6) below summarizes the frames.

Archiframe	Primary frame	Basic frame	Microframe	
Social Interaction	UNILATERAL	Forcing	Make	
			Compel	
		Try to stop	Hinder	
			Prevent	
		Stopping	Discontinue	
			Terminate	
		Counteractive forcing	Counter	
			Comply	
		Assisting	Help	
			Support	
			Do_For	
		Letting	Allow	
			Let alone	
			BILATERAL	See Lai (2011)

Table (6): Overview of the Frames in Mandarin Social Interaction Frame

### 3.6 Accounting for Manipulation Causatives

This section aims to apply our findings to the implication of two linguistic issues that are relevant to force discussions: The status of Manipulation causatives 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* and the polysemy of 讓 *ràng* in Mandarin. They will be discussed in the following respectively.

#### 3.6.1 The Manipulation Causatives 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào*

The Manipulation causatives 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* (as well known as *analytic causative verbs*, *Chinese Causatives*, or *Shiyi verbs*) in Mandarin have attracted much attention in modern syntax studies due to the fact that they are highly relevant to causative constructions and resultative complements. This section aims to present distinctive force relations encoded in these causatives from the perspective of verbal semantics so as to claim that the Manipulation causatives alternatively are used as causative markers to lexicalize various purposeful forces in Mandarin.

In the previous literature, Chang (2005; 2006) has explored the historical developments as well as the poly-grammaticalization of the Manipulation causatives in detail. According to Chang (2006:2), 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* have “grammaticalized into several syntactic functions such as causative, permissive,

concessive, and passive ones.” Based on her findings, there are two major developing lines that indicate the semantic shift of 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào*:

- 1) from imperative → deliberate causatives → non-deliberate causatives
- 2) from causatives → permissives → unwilling permissives → passives

Chang (2006) further claimed that the four causatives are chosen over the others based on different semantic functions. For example, 使 *shǐ* is frequently used to denote the causal relations between events, which is ungrammatical for 讓 *ràng* and 叫 *jiào* to encode (i.e. 日元升值使/\*讓/\*叫日本大企業營收惡化). 令 *lìng*, however, is mostly used in descriptive causatives to signal a certain emotion (i.e. 這種現象令人憂心).

We respond to Chiang’s analysis in two ways. Firstly, from the social interactions we explored, it is found that only *forcing* and *letting* can be expressed by both the Mandarin SIVs and Manipulation causatives 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* as shown in table (7) below:

Basic frame	Microframe	Example
Forcing	Make	英法迫使/令/使/讓 <sub>1</sub> 叫中國簽了不平等條約。
	Compel	總有一天我會強迫/讓 <sub>2</sub> 叫你死在我手上。
Letting	Allow	老師允許/讓 <sub>3</sub> 我先離開。
	Let alone	媽媽放任/讓 <sub>4</sub> 小孩不停哭鬧。

Table (7): The force relations indicated by both Mandarin SIVs and Manipulation causatives 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* in Mandarin

The table above shows that the four causatives 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* are alternatively used to lexicalize deliberate social interactions such as *making*, *compelling*, *allowing* and *letting alone* in which both force-exerting parties are volitional, purposeful, and controllable forces.

Secondly, even though Chang (2006) argued that only 使 *shǐ* (and in a few cases of 令 *lìng*) is used to denote the causal relations between events, it is found in the present study that 讓 *ràng* is also used to lexicalize causal relations between two events.

That is to say, 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* are not distinct from one another based on what argument they take in subject position. They are actually used to lexicalize different degrees of force. When it is a strong manipulation (Make frame for example), 令 *lìng* and 使 *shǐ* are mostly favored; whereas only 讓 *ràng* and 叫 *jiào* are used to denote weak manipulation (Compel frame for example), in which no result is guaranteed.

- (12) 我讓/叫/\*使/\*令他走，他沒走。  
*wǒ rang/jiào/\*shǐ/\*ling tā zǒu tā méi zǒu*  
 I RANG/JIAO/\*SHI/\*LING 3sg go 3sg NEG-go  
 ‘I forced him to leave, but he didn’t leave.’

We can conclude this section by addressing that the four Manipulation causatives 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* are a group of special verbs marking distinct causal relations. They are alternatively used as causative markers to lexicalize deliberate social interactions such as *making*, *compelling*, *allowing* and *letting alone* in which both force-exerting parties are volitional, purposeful, and controllable forces. While doing the replacement, 令 *lìng* and 使 *shǐ* are favored in strong manipulation scenarios whereas 讓 *ràng* and 叫 *jiào* are preferred in weak manipulation cases. Together with other SIVs, they display various but systematic social interactions in Mandarin.

### 3.6.2 The polysemy of 讓 *ràng*

As shown in Table (7), the Manipulation causative 讓 *ràng* is used to lexicalize at least four kinds of social interactions. In this section, we aim to offer a frame-based account that differentiates purposeful and deliberate 讓 *ràng* investigated in Mandarin SIVs from their emotional and accidental counterparts. Let’s look at the examples below:

- (13) a. [我/Antagonist][迫使/讓<sub>1</sub>/Forcing][他/Agonist][離開  
 /Targetact<+success>]。  
*wǒ pòshǐ/ràng tā líkāi*  
 I POSHI/RANG 3sg leave  
 ‘I made him leave.’
- b. [我/Antagonist][逼/讓<sub>2</sub>/Forcing][他/Agonist][離開/Target act]。  
*wǒ bī/ràng tā líkāi*  
 I BI/RANG 3sg leave  
 ‘I forced him to leave.’
- c. [我/Grantor][允許/讓<sub>3</sub>/Letting][他/Grantee][離開/Target act]。  
*wǒ yǔnxǔ/ràng tā líkāi*  
 I YUNXU/RANG 3sg leave  
 ‘I allowed him to leave.’
- d. [我/Grantor][放任/讓<sub>4</sub>/Letting][他/Grantee][離開/Target act<+to  
 continue>]。

wǒ fàngren/ràng tā líkāi  
I FANGREN/RANG 3sg leave  
'I let him leave (without interference).'

- (14) [這幅畫/stimulus]讓<sub>5</sub>[人/experiencer]感動。  
zhè fú huà rang rén gǎndòng  
this-CL painting RANG people feel touched  
'This painting is very touching.'

As shown in (13), the Manipulation causative 讓 *ràng* is alternatively used as a causative marker indicating deliberate social interactions in which both force-exerting parties are purposeful, volitional and controllable forces. On the the other hand, the verb 讓 *ràng* in (14) denotes an accidental social interaction in which a non-volitional stimulus unintentionally caused an emotional experience or response of an experiencer, who has no control of whether or not he/she wants to feel that way. According to Chang (2010) and Hong (2009), verbs indicating this stimulus-response relationship are “Stimulus-Headed verbs” that codes stimulus-oriented emotional feelings.

By conducting the frame-based analysis of Mandarin SIVs, our study shows that 讓 *ràng* is used to replace social interaction verbs that indicate deliberate causations (i.e. *forcing* and *letting*). The deliberate senses are different from accidental causations even though they are commonly lexicalized by the same causative verb 讓 *ràng* in Mandarin.

#### 4. Conclusion

Adopting Frame Semantics (Fillmore and Atkins 1992) and the multi-layered hierarchical taxonomy proposed for Mandarin verbal semantics studies (Liu and Chiang 2008), this study classifies Mandarin social interaction verbs into different primary frames, basic frames and microframes based on frame elements of subgroups of verbs and their syntactic realizations as well as the internal verbal semantic features. The multi-layered hierarchical structure helps us not only have a complete overview of verbs in the same domain but also proves strong correlations between syntax and semantics.

Based on both the grammatical properties of different social interaction verbs discussed above and the possible force relations between physical entities, the frames are evoked by verbs that share the same frame elements and defining patterns; the conceptual schemas are postulated by verbs that encode the same force relations. With

the conceptual schema exemplifying the force relations, SIVs can be divided into unilateral and bilateral ones.

By comparing the unilateral interaction verbs mentioned in Talmy's FD schemas in English with the counterparts in Mandarin, several notable differences are distinguished. Firstly, while some of the English causation verbs distinguish onset causation (ex. *stop...from*) from extended causation (ex. *keep...from*), Mandarin SIVs are underspecified with regard to the onset/extended distinctions. Secondly, the balance of strengths as well as the result of the interaction is often left unspecified with the SIVs itself in Mandarin. The collocational NPs create a context in which the result of force competition is mostly interpreted via conversational implicature. Thirdly, by examining the FD schemas in Mandarin, Force Dynamics is not only a generalization over causation as Talmy (2000) proposed, but also incorporates concepts like *assisting*, *supporting*, and *do something for someone's benefit* into the concept of *help* in Mandarin, which supports the claim that Force Dynamics is a fundamental category in Mandarin as it is in English, but they differ in how force-dynamic is schematized and lexicalized with distinctive close-class forms.

Furthermore, by way of thorough investigation of the bilateral social interaction verbs in Mandarin, it is found that the mapping of syntactic patterns to frames exactly reflect the way how verbs encode reciprocity. In the reciprocity scale, the more intransitive the verbs are, the more reciprocity is lexicalized in them. On the contrary, the more transitive the verbs are, the less reciprocity is lexicalized in them. These verbs need to collocate with other syntactic patterns to express mutual configurations. The reciprocity scale of social interaction verbs is shown as Table (8) below:

<b>Reciprocity Scale</b>	<b>Highly-reciprocal</b>	<b>Mid-reciprocal</b>	<b>Low-reciprocal</b>
<b>Frame</b>	Bilateral	Bilateral & Unilateral	Unilateral
<b>The Way How Verbs Encode Reciprocity</b>	Lexical	Lexical & Syntactic	Syntactic
<b>Syntactic Pattern</b>	Intransitive	Intransitive & Transitive	Transitive
	*我合作你。	我配合你。	我幫助你。
	我跟你合作。	我跟你配合。	*我跟你幫助。
	我們合作。	?我們配合。 我們互相配合。	*我們幫助。 我們互相幫助。

Table (8): The reciprocity scale of social interaction verbs

This study not only builds a conceptual linkage among verbs in social interaction domain but also helps to explain the unique status of the four Manipulation causatives 令 *lìng*/使 *shǐ*/讓 *ràng*/叫 *jiào* as well as to provide a frame-based explanation of the polysemy of 讓 *ràng*. It ultimately draws implications on the cognitive-linguistic correspondences pertaining to the domain of force relations for both language-specific and cross-linguistic generalizations.

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### Website Resources

- Sinica Corpus (中研院平衡語料庫)  
<http://dbo.sinica.edu.tw/SinicaCorpus/index.html>
- Chinese Word Sketch (中文詞彙特性速描系統)  
<http://wordsketch.ling.sinica.edu.tw/>
- Sinica Bow (中研院中英雙語知識本體詞網)  
<http://bow.sinica.edu.tw/wn/>
- FrameNet <http://framenet.icsi.berkeley.edu/>
- WordNet <http://wordnet.princeton.edu/>
- Mandarin VerbNet <http://140.113.222.78/verbnet/website/>
- Google Search <http://www.google.com.tw/>

### Conference Presentation

Research results have been presented in the following conferences.

Lai, I-Fan and Meichun Liu. 2011. A Lexical Semantic Study of Mandarin Social Interaction Verbs. Paper presented at the 2011 Chinese Lexical Semantics Workshop (2011 CLSW), Taipei, May 3-5.

Chiang, Tzu-I and Meichun Liu. 2011. Force Dynamics and Force Interaction Verbs in Mandarin. Paper presented at the Fifth Conference on Language, Discourse and Cognition (CLDC-5), Taipei, April 29-May 1.