Chinese Annotation Guidelines for

Relation Detection and Characterization (RDC)

Version 4.3 - 20040205[1]

1 Introduction

The goal of RDC is to detect and characterize relations of the targeted types between EDT entities. Every relation takes two primary arguments (the two entities that it links) and must be assigned one of the seven syntactic relation class types. For all of these types, with the exception of Verbal, the relation extent is limited to the noun phrase. Subtypes will be assigned to every relation further characterizing the identified relationships. For each Type, there is a set of possible Subtypes.

2 Entity-Entity Relations

2.1 Types and Subtypes

A. Physical

1 Located

The Located relation captures the exact location of an entity. However, if an entity is located in a geographical region like a lake, a river, or a mountain, it should be reported as a Located relation even if the text does not explicitly refer to the shores of the lake, the banks of the river, or the foothills of the mountain.

a military base in Germany

[Located("a military base in Germany","Germany")]

St. Vartan's Cathedral, on Second Avenue

[Located("St. Vartan's Cathedral, on Second Avenue","Second Avenue")]

a station at the top of the mountain

[Located("a station at the top of the mountain","the top of the mountain")]

[1] Except for section 2.2, this document is basically the same as the English version (Version 4.3 - 20040122).

2 Near

Near indicates that an entity is explicitly near another entity, but not actually in that location or part of that location.

a town some 50 miles south of Salzburg in the central Austrian Alps

[Near("a town some 50 miles south of Salzburg in the central Austrian Alps","Salzburg")]

3 Part-whole

Part-Whole characterizes physical relationships between entities and their parts.

Norwalk, Conn.

[Part-Whole("Norwalk, Conn.","Conn.")]

the top of the mountain

[Part-Whole("the top of the mountain","the mountain")]

a state within the former Soviet Union

[Part-Whole("a state within the former Soviet Union","the former Soviet Union")]

B. Personal/Social

Personal/Social relations describe the relationship between entities of type PER. No other entity type is allowed as an argument of these relations. The order of the arguments does not impact relations of this type. We record only that there exists a relationship between the entities.

1 Business

Business captures the connection between two entities in any professional relationship. This includes boss-employee, lawyer-client, co-workers, political relationships, etc.

their colleagues

[Business("their","their colleagues")]

his lawyer

[Business(“his”, “his lawyer”)]

a spokesman for the senator

[Business("a spokesman for the senator","the senator")]

2 Family

Family captures the relation between an entity and another entity with which it is in any familial position.

relatives of the dead

[Family("relatives of the dead" "the dead")]

his wife

[Family("his wife" "his")]

his ailing father

[Family("his ailing father","his")]

3 Other

Other is reserved for all Social relationships that do not cleanly fit into the subtypes above.

his roommates

[Other("his","his roommates")]

C. Employment/Membership/Subsidiary – (EMP-ORG)

1 Employ-exec(s)

This subtype describes relations between persons and organizations where the person holds a managerial position such as CEO, president, vice-president, director, leader, head, officials or roles of appointed or elected officials.

For example:

George Bush, the US president,

[Employ-exec (“the US president,”, “US”)]

the CEO of Microsoft

[Employ-exec(“the CEO of Microsoft”, “Microsoft”)]

2 Employ-staff

This subtype is for relationships between organizations and GPEs and persons who fill general staff positions within them.

Mr. Smith, a senior programmer at Microsoft...

[Employ-staff(“a senior programmer at Microsoft”, “Microsoft”)]

3 Employ-undetermined

At times the context does not give you enough information to determine whether an individual is performing a managerial or general staff position within an organization. Employ-undetermined is for these relations.

Microsoft spokesman, Bob Jones

[Employ-undetermined("Microsoft spokesman", "Microsoft")]

4 Member-of-group

Member relations include organization membership such as political party membership, church membership, and so on. For example:

an activist for the advocacy group Peace Now

[Member("an activist for the advocacy group Peace Now:",
"the advocacy group Peace Now")]

Organizations and GPEs can be members of other Organizations. The Member Subtype describes the relationship between these entities. For example:

three permanent UN member countries, the US, England, and China,

[Member ("*three permanent UN member countries*", "UN")]

5 Subsidiary

Subsidiary characterizes the relationship between a company and its parent company.

Shares of Disney, parent company of ABC, are up five eighths.

[Subsidiary ("ABC", "parent company of ABC")]

It also describes the relationship between a department of an organization and that organization. This includes the organizational aspect of GPEs. For example:

New York police

[Subsidiary("New York police", "New York")]

Microsoft's accounting office

[Subsidiary("Microsoft's accounting office", "Microsoft")]

The U.S. Congress decided to veto the ecology bill.
[Subsidiary (The U.S. Congress, U.S.)]

6 Partner

Partner characterizes the collaborative relationship between two agents (PER, ORG, GPE).

The joint British-U.S. forces in Iraq

7 Other

Other is reserved for relationships between PER, ORG, and GPE that do not fit into the other schema.

D. Agent-Artifact

1 Possessor/Owner

An agent is in a Possessor/Owner relationship with an artifact when that agent is the owner of the artifact or has possession of or habitually uses it. In the following example, it is not explicitly clear whether I own or rent the house. Possessor/Owner can be applied to either relationship.

My house is in West Philadelphia.

2 Inventor/Manufacturer

An agent is in an Inventor/Manufacturer relationship with an artifact when that agent caused the artifact to come into being. For example,

Rubin Military design, the makers of the Kursk

US helicopters flew over northern Iraq.

3 Other

Other is reserved for any Agent-Artifact relations that do not fall under the other two subtypes.

US helicopters flew over northern Iraq last night. They had been stolen two weeks ago by terrorists.

Does this sentence mean that the helicopters were owned by the US, made in the US, manned by US military personnel, or some combination of all of these? Since this is unclear, we will tag the relationship between the US and the helicopters as Other.

E. PER/ORG Affiliation

1 Ethnic

Ethnic describes the relationship between Person(s) and the collective PER group to which they are identified by themselves or the article.

Cuban-America people

Arab people

2 Ideology

Ideology describes the relationship between Person(s) and the collective PER/ORG group(s) defined by coherent ideological systems to which they are identified by themselves or the article.

Christian people

3 Other

Other should be used for all PER/ORG Affiliation relations that do not fit cleanly into any other categories. Many of the relations that fall under this subtype will be cases where a PER or ORG modifies another entity. The intended meaning of this construction is often unclear. This subtype can also be filled with relations that have type overlap. For example:

Jewish man

Please note that Employment relations should be tagged as such.

Microsoft programmer

This example should be tagged as an Employ-staff. This follows our general rule of tagging for the most information.

F. GPE Affiliation

More than one aspect of the GPE is referenced.

1 Citizen/Resident

Citizen/Resident describes the relation between a person and the GPE in which they have citizenship or in which they live.

U.S. businessman Edmond Pope

[Citizen("U.S. businessman Edmond Pope","U.S.")]

2 Based-in

Organizations are not always located in the GPE in which they are based. We distinguish between the physical locations of an ORG with their GPE of origin with the Based-In Subtype.

Salzburg Red Cross officials

[Based-In("Salzburg Red Cross officials","Salzburg")]

3 Other

Other should be used for all GPE Affiliation relations that do not fit cleanly into any other categories. Many of the relations that fall under this subtype will be cases where a GPE modifies another entity. The intended meaning of this construction is often unclear.

More and more US companies are moving their operations to Mexico.

Note that the relationship between GPEs and government organizations should be EMP-ORG.Subsidiary.

G. Discourse

A DISC relation is one where a semantic part-whole or membership relation is established only for the purposes of the discourse. The whole or group referred to is not an official entity relevant to world knowledge. Instead, it has been constructed for solely the purposes of discursive efficiency.

Many of these people

[DISC("Many of these people","these people")]

each of whom

[DISC("each of whom","whom")]

each of our parishes

[DISC("each of our parishes","our parishes")]

the dead included dozens of Austrians and Germans, as well as Japanese tourists and American soldiers from a military base in nearby Germany

[DISC("dozens of Austrians and Germans","the dead included dozens of Austrians and Germans, as well as Japanese tourists and American soldiers from a military base in nearby Germany")]

four representatives, all of them accountants, including E. Clay Shaw Jr., a Florida Republican, and Brad Sherman, a California Democrat

[DISC("Brad Sherman","four representatives, all of them accountants, including E. Clay Shaw Jr., a Florida Republican, and Brad Sherman, a California Democrat")]

2.2 Relation Syntactic Classes (Chinese only)

Unlike Entities and Events, relations have no actual anchor in the text. Nevertheless, we only tag relations between two entities if the syntactic relation between their mentions falls into one of the following classes.

A. PreMod

Pre-modification is the predominant type of modification for any type of phrases in Chinese and it's safe to say that pre-modification is the only of modification that a head noun can have in Chinese. When a non-attributive mention directly modifies another mention, we tag their relation if there exists a taggable relation between them. It follows necessarily that an attributive common noun modifier never holds a relation with what it "modifies", since it is part of the nominal compound and doesn't refer.

[[[英国外交大臣][库克]]的发言人]
[Business ("英国外交大臣库克的发言人" ," 英国外交大臣库克")]
[Employ-staff ("英国外交大臣", "英国")]

Note while we do not annotate how attributive mentions and what they are attributive of, attributive mentions can relate to their own modifiers as shown in the second relation above and in the following example.

[[[[俄罗斯]$_{NAM}$"红宝石"中央海军兵器设计局]$_{NAM}$[[局长]$_{NOM}$ 兼[总设计师]$_{NOM}$]$_{PMM}$]$_{EPM}$[斯帕斯基院士]$_{NAM}$]$_{APP}$
[Subsidiary ("俄罗斯"红宝石"中央海军兵器设计局", "俄罗斯")]
[Employ-exec ("局长", "俄罗斯"红宝石"中央海军兵器设计局")]
[Employ-exec ("总设计师", "俄罗斯"红宝石"中央海军兵器设计局")]

For modification, one mention is always contained in the extent of the other. In addition, we only annotate relations exhibited between a mention that is an immediate modifier of the other. The only exception to this is PMM and EPM. PMM and EPM are transparent to relations, which means that any internal mention of a PPM or EPM can be related to a mention outside of the PPM or EPM as if the PPM or EPM did not exist. On the other hand, we do not annotate any relation between a PPM or EPM with any of its modifier directly. This allows us to fine the relations. For example, if we replace 局长兼总设计师 with 工程师兼局长, we would have [Employ-staff ("工程师" ," "红宝石" 中央海军兵器设计局")].

In Chinese we do not distinguish between possessive and non-possessive due to the many functions of the morpheme 的. However, the annotator should be careful to distinguish between “phrasal 的” and “relative clause 的” – in the latter case, 的 is treated as an argument in the relative clause and other elements within the relative clause may relate to 的, although 的 is more likely to be an event argument. The only exception is when 的 is both a relative clause marker and “head” of a headless mention.

W continue to treat the relation between an enumeration list and the head noun as modification.

[[[德国]$_{NAM}$、[荷兰]$_{NAM}$]$_{PMM}$等国]$_{NOM}$２０日也宣布准备与朝鲜建交。
[DISC(“德国”, “德国、荷兰等国”)]
[DISC(“荷兰”, “德国、荷兰等国”)]

由[[国防科工委、国家航天局、外交部、中宣部、科技部、教育部、中科院和中国工程院]$_{PMM}$等单位]$_{NOM}$联合举办
[DISC(“国防科工委”, “国防科工委、国家航天局、外交部、中宣部、科技部、教育部、中科院和中国工程院等单位”)]
…

B. Stative Predication

Mentions of two entities can often be linked by stative predicates – predicates that do not trigger events (taggable or non-taggable), where one mention is in the subject position while the other may be a direct object of a stative verb, an object of a preposition where the PP is the predicate itself with or without an explicit copular verb.

青海位于青藏高原上
[Located(“青海”, “青藏高原”)]

矗立在苏南平原上的华西金塔巍峨挺拔
[Located(“的”, “苏南平原”)]

Note we do not tag relations between entities that are arguments or attributes of events. This restriction is not limited to currently taggable events.

C. Formulaic

新华社北京电
[Located(“新华社”,“北京”)]

D. Other (*this label is not available in the tool, thus not applicable now*)

中国国际航空公司和德国汉沙航空公司日前实现联盟
[Partner(“中国国际航空公司”, “德国汉沙航空公司”)]

3 Event-Entity Relations

Some Roles and Attributes are not stated within the extent of an Event as defined in the Event Annotation Task Guidelines. They are added to the event through verbal constructions. For example, in a text a meeting event might be established.

Joe and Bill met on Thursday to discuss the proposal.

This would be annotated in the Event Task as follows.

[Joe and Bill {met} on Thursday to discuss the proposal.]

Later in the text, a new agent could be included in the event.

Sue was also at the meeting.

In this sentence, *[the {meeting}]* would be identified as a mention of the event. *Sue* is not included within the extent of this nominal event mention and therefore would not be identified as an agent of the event.
At this stage, we will establish the relationship between the event mention and the entity mention that fills the Role or Attribute of that event by creating one of the relations listed below. In this example, we would tag an Agent relationship between *Sue* and *the meeting*.

[Sue] was also at [the meeting].

We will identify Event-Entity relations of type Agent, Object, Source, Target, Location, Time, and Modifier to record all Roles or Attributes of the events filled in this way.

3.1 Agent

Agent relations fill an entity mention in the Agent Role for the event mention. For example:

He was responsible for the killing.

3.2 Object

Object relations fill an entity mention in the Object Role for the event mention. For example:

a victim of the killing

3.3 Source

Source relations fill an entity mention in the Source Role for the event mention. For example:

> *The journey began in Skokie.*

3.4 Target

Target relations fill an entity mention in the Target Role for the event mention. For example:

> *The journey ended in Reno.*

3.5 Location

Location relations fill an entity mention in the Location Attribute for the event mention. For example:

> *The journey spanned the continent.*

3.6 Time

Time relations fill an entity mention in the Time Attribute for the event mention. For example:

> *He made the arrest Thursday.*

3.7 Modifier

Modifier relations fill an entity mention in the Modifier Attribute for the event mention. For example:

> *A gun was used in the killing.*