

## ***Nandao*-Questions as a Special Kind of Rhetorical Questions**

**Introduction.** This paper addresses the syntax and semantics of a special kind of Rhetorical Questions (RQs) in Mandarin, i.e. questions with *nandao* “hard-say” (*nandao*-Q). *Nandao*-Qs necessarily have rhetorical question readings (1, 2). To derive this, I propose that *nandao* is a WH-word which takes a question denoting a single proposition and turns it into a set with the complement proposition. This analysis differs significantly from earlier proposals for deriving RQ meanings as asserting the negation of the proposition denoted by its IP (cf. Sadock [1], Han [2], a.o.).

**The Distribution of *Nandao* in Mandarin.** First, *nandao* cannot appear in direct declarative sentences (3) nor can it be embedded in [-wh] verbs, e.g. *xiangxin* “believe”, which requires a declarative clause as its complement (4). Secondly, *nandao* cannot appear in A-not-A kind of Y/N-Qs (5). Although *nandao* can appear in (2) which has a WH-word (*shui* “who”) in it, I claim that these are not true WH questions. In Mandarin, many WH-words can have indefinite pronoun interpretations including *shui* “whoever”, *shenme* “whatever”, and so on (cf. Li and Thompson [3]). But there is one WH-word which doesn’t have an indefinite pronoun interpretation, i.e. *weishenme* “why”. Any interrogative sentence with *weishenme* will be a true WH-Q where *nandao* cannot appear (6). Such incompatibility suggests: (2) is not a WH-RQ, but a Y/N-RQ with indefinite WH-word; *Nandao* cannot transfer WH-Q into WH-RQ. The other piece of evidence is found in the distribution of question particles in Mandarin. There are two types of question particles. One is designated for Y/N-Qs including *me* and *ma*. The other type is designated for WH-Qs including *ne* (cf. *ibid.*). The Q particle *ma* in (2) shows that it is a Y/N-RQ but not a WH-RQ. The incompatibility of *nandao* and *ne* again shows that *nandao* is incompatible with WH-Qs (7).

**The Syntax and Semantics of *Nandao*.** Guerzoni [4] and George [5] assume there is a covert *whether* or *Q* operator in direct Y/N-Qs. They both mirror the meaning of *whether* or *Q* operator from the semantics of other WH-words. Both of them treat *whether/Q* operator to denote an existential quantifier ranging over the two polarities (positive/negative) [4] or the two truth values (1/0) [5]. Unlike *whether/Q* operator, *nandao* can only exhibit a negative meaning. With this spirit, I propose that in *nandao*-Qs, there is no covert *whether* in SpecCP, and the SpecCP will be filled by *nandao*. The semantics of *nandao* is given in (8) and a compositional analysis of (9) is given in (10). In (10), at CP, *nandao* denotes an existential quantifier to range over only the negative truth value, which makes the proposition denoted by IP be false. This key step reverses the polarity of the question nucleus denoted by IP. And abstraction over *h* makes the complement proposition be the only member of the answer set.

**Explanations of Mandarin Data.** The syntax and semantics of *nandao* suggests that *nandao* be a WH-word with [+wh] feature. So, it cannot appear in declaratives or be embedded under [-wh] verbs. The incompatibility of *nandao* with WH-Qs is due to the fact *nandao* and other WH-words (e.g. *shui*) cannot occupy the same SpecCP. The explanation of incompatibility of *nandao* and A-not-A Y/N-Qs is rather a semantic one. I show in (11) and (12) that a logical crash is responsible for such incompatibility. In the talk, I will also address the possibility of an analysis of A-not-A questions in terms of Alternative Questions and explore the viability of a semantic explanation for the incompatibility of *nandao* and WH-Qs.

**Conclusion.** Denoting a set of singleton answer, *nandao*-Qs confirm what we know about RQs: they are interrogative in form but assertive in force. The analysis of *nandao* given here

explains its interesting distributional patterns. It also locates the switch from question to assertion in the meaning of *nandao*: if the set of possible answers is necessarily a singleton, the *nandao*-Qs cannot represent a state of uncertainty that ordinary questions do. In the talk I will further argue that the present proposal derives the RQ effect in a simpler way than the one proposed by Han [2].

- (1) *Nandao Zhangsan bu xiang chuqu wan (me)?* (2) *Nandao shui bang-guo ni (ma)?*  
 Hard-say Zhangsan not want out-go play Q Hard-say who help-EXP you Q  
 “Doesn’t Zhangsan want to go out to play?” “Who helped you?”  
 (=Zhangsan wants to go out to play.) (=No one helped you.)
- (3) \**Nandao Lisi hui lai.* (4) *Zhangsan xiangxin (\*nandao) Lisi hui lai.*  
 Hard-say Lisi will come Zhangsan believe hard-say Lisi will come  
 “Lisi will come.” (≠Lisi will not come.) “Zhangsan believes that Lisi will come.”
- (5) \**Nandao Zhangsan chi mei chi fan?* (6) \**Nandao Zhangsan weishenme qu xuexiao?*  
 Hard-say Zhangsan eat not eat rice hard-say Zhangsan why go school  
 “Did Zhangsan have meal or not.” “Why does Zhangsan go to school?”  
 ((Intended but n/a) There is no reason for Zhangsan to go to school.)
- (7) *Nandao shui bang-guo ni ma/\*ne?*  
 hard-say who help-EXP you Q Q (8)  $[[nandao]]=\lambda Q_{\langle s,t,t \rangle} \lambda h_{\langle s,t \rangle} \exists r_i (r=0$   
 “Who helped you?” (=No one helped you.)  $\wedge h=\lambda w'(Q(w')(r))$
- (9)  $[_{CP} Nandao [_{C'} [C] [_{IP} \text{it is raining}]]]$  (11)  $[_{CP} Nandao [_{C'} [C] [_{IP} \text{it is raining or not raining}]]]$   
 (10)  $IP: raining(w) C: \lambda q \lambda p_i [p=q]$  (12)  $IP: raining(w) \vee \neg raining(w) C: \lambda q \lambda p_i [p=q]$   
 $C': \lambda q \lambda p [p=q] raining(w)$   $C': \lambda q \lambda p [p=q] (raining(w) \vee \neg raining(w))$   
 $\Rightarrow \lambda p [p=raining(w)]$   $\Rightarrow \lambda p [p=(raining(w) \vee \neg raining(w))]$   
 $CP: \lambda Q \lambda h \exists r (r=0 \wedge h=\lambda w'(Q(w')(r)))$   $CP: \lambda Q \lambda h \exists r (r=0 \wedge h=\lambda w'(Q(w')(r)))$   
 $\lambda w \lambda p [p=raining(w)]$   $\lambda w \lambda p [p=(raining(w) \vee \neg raining(w))]$   
 (intensionalized over C')  $\Rightarrow \lambda h \exists r (r=0 \wedge h=\lambda w' [r=(raining(w) \vee \neg raining(w))])$   
 $\Rightarrow \lambda h (h=\lambda w' (raining(w) \vee \neg raining(w)=0))$   $\Rightarrow \lambda h (h=\lambda w' (raining(w) \vee \neg raining(w)=0))$   
 $\Rightarrow \{\lambda w' (raining(w')=0)\}$  or {It is not raining} \***CRASH** (as  $raining(w) \vee \neg raining(w)$  is a tautology which can never be false)  
 $\Rightarrow \{\emptyset\}$

## References:

- [1] **Sadock, J. M.** 1971. Queclaratives. *Papers from the Seventh Regional Meeting of the Chicago Linguistic Society* 7, 223-232. [2] **Han, Chung-Hye.** 2002. Interpreting interrogatives as rhetorical questions. *Lingua* 112, 201-229. [3] **Li, Charles N. and Sandra A. Thompson.** 1981. *Mandarin Chinese: a Functional Reference Grammar.* Berkeley: University of California Press. [4] **Guerzoni, Elena.** 2003. *Why Even Ask: On the Pragmatics of Questions and the Semantics of Answers.* Ph.D. Diss, MIT. [5] **George, B. Ross.** 2011. *Question Embedding and the Semantics of Answers.* Ph.D. Diss., UCLA.