# Workshop on Linguistic Theory and Language Acquisition 2024 理論語言學與語言獲得研討會

#### 從格柵理論認識漢語複數結構的語法語義特徵

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漢語的語法語義結構呈現出自身的獨特性,尤其體現在其表面上形態和標記的貧乏性、語法標記的可選性和貌似的重疊性。一個突出的案例就是對"都"字句的刻畫,包括"都"的邏輯語義及其與漢語複數語義的關係,以及"都"與"每"的共現現象。對這些問題的研究方興未艾,出現了你方唱罷我登場的熱鬧場景。我們的進路是對漢語語義結構做更形式化的研究,也期望在形式語義方面有新的發現。

我們借鑒代數語義學的思路,從布爾代數、有窮偏序、海瑟圖、格柵及相關的並、交關係來刻畫漢語的複數語義。在這個總體研究框架下,我們這次的發言只談一個具體的問題,那就是複數語義為什麼應該如 Link 所說,是一個只有並、沒有交的無底半格 (bottomless semi-lattice),這麼說到底有什麼理論依據。然後我們分析一些新近論述,這種新論述試圖用對交-並的編碼來解釋"每"-"都"的共現。我們的結論是: Link 的說法仍是正確的:複數結構並不存在"交",但是也有辦法借用"交"這個概念來分析某些結構的語義特徵。

### The Syntax and Semantics of Chinese Plurals: A Lattice-Theoretic Analysis

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Chinese exhibits many unique syntactic and semantic features, such as its paucity in inflectional morphology and grammatical markers which, while often optional, are sometimes also allegedly redundant. A case in point concerns the characterization of sentences containing "dou" (all), including its logical meaning, its relationship with Chinese plurals in general, and the co-occurrence of "dou" with "mei" (every). These issues continue to attract attention, resulting in an ever-increasing volume of publications.

Looking at Chinese plurals in terms of algebraic semantics requires us to familiarize ourselves with the notions of Boolean algebra, PO-set, Hasse diagrams, lattices and the related notions of join and meet. Within this framework, we explore a specific issue in this talk: why is plural meaning structurally represented as bottomless semi-lattices with join but no meet? Contrary to some recent studies which propose to resort to the notion of meet to account for the

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"Mei"..... "dou" co-occurrence, we agree with Link's original proposal that plurals do not involve meet, unless we take meet to mean the sharing of semantic features.

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