The existence of V-V compounds is a characteristic property of both Japanese and Mandarin Chinese. However, restrictions on compound formation are not identical in the two languages. In this paper, I argue that it is because Japanese builds V-V compounds through VP-adjunction while Chinese builds them based on a small clause structure. Namely, Japanese V-V compounds have an adjunct-head structure while Chinese V-V compounds have a head-complement structure.

As Li (1990, 1993) has indicated, Mandarin Chinese has resultative V-V compounds formed from two unergative verbs, while Japanese does not. (1a) is an example cited from Li (1990) and (1b) shows that its counterpart is ungrammatical in Japanese.

(1) a. Daiyu ku-zou-le henduo keren. (Chinese)
   Daiyu cry-leave-Asp many guest.
   Daiyu cried (so much that) many guests left.
   b. *Hanako-ga takusanno okyakusan-wo naki-sat-ta. (Japanese)
   Hanako-NOM many guest-ACC cry-leave-Asp
   Hanako cried (so much that) many guests left.

It is not reasonable to consider that the restriction on the formation for Japanese V-V compounds is stronger than in Chinese. So-called manner compounds are possible in Japanese, but not in Chinese, as shown in (2)

(2) a. Hanako-ga naki-kurasite-iru. (Japanese)
   Hanako-NOM cry-live-Asp
   Hanako cries all the day.
   b. *Zhangsan ku-guo-zhe rizi. (Chinese)
   Zhangsan cry-live-Asp day
   Zhangsan cries all the day.
   b'. Zhangsan ku-zhe-guo rizi. (Chinese)
   Zhangsan cry-Asp-live day
   Zhangsan cries all the day.

In (2a), the first verb expresses the manner of the action denoted by the second verb. However, the direct translation of this type of compound is not acceptable in Chinese. As shown in (2b) and (2b’), instead of V-V compounds, Chinese usually uses a modifier VP with an aspectual affix ‘zhe’ to express the same meaning. In sum, from two unergative verbs, Mandarin Chinese can form a resultative compound but not a manner one, while Japanese can form a manner compound but not a resultative one.

I argue that this contrast can be reduced to the structural difference between V-V compounds in the two languages. The head-complement relation semantically
expresses a relation of causer-result (Carrier and Randall 1992), so it is possible for Chinese to form resultative V-V compounds, but not those expressing a modification relation. On the other hand, the adjunct-head construction can be considered semantically as a relation of modification, and as expected, manner V-V compounds can be formed in Japanese.

The evidence that is seemingly opposed to, but actually stands for my claim is that besides manner compounds, Japanese has a class of compounds that looks superficially similar to Chinese resultative V-V compounds. (3) is an example.

(3) Hanako-ga yogore-wo aria-otosi-ta.
    Hanako-NOM dirt-ACC wash-remove-PAST
    Hanako washed off the dirt.

‘arai-otos(u)’ (wash-remove)’ in (3) is considered as a resultative compound corresponding to Chinese ‘xi-diao (wash-drop)’. But there is an important difference between them. The second verb in Japanese ‘arai-otos(u)’ is a transitive verb while that in Chinese ‘xi-diao’ is unaccusative. Because of the transitivity of the second verb, Japanese resultative V-V compounds are also called ‘means compounds’ (Kageyama 1993, Matsumoto 1996). On the other hand, Chinese resultative V-V compounds are purely resultative and can never be considered as means ones.

A further piece of evidence for my claim comes from object inheritance phenomena in the two types of V-V compounds in Japanese. Based on the VP-shell structure (Chomsky 1995), I consider that there are two positions where VP can adjoin, i.e., vP and VP. Adjunction to VP results in manner V-V compounds while adjunction to vP creates resultative ones. I assume that the first verb is the adjunct while the second verb is the head because Japanese is a head-final language. With the first verb modifying the v of the second verb, semantically there arises a relation of causer-result between the two verbs when VP adjoins to vP.

Following Chomsky (2001), I consider that accusative case is checked by the AGREE mechanism between v and the NP it c-commands. Adjoining to vP, the internal argument of the first verb cannot be c-commanded by the v of the second verb, while adjoining to VP, it can. Therefore it is presumed that in resultative V-V compounds (adjunction to vP), the internal argument of the first verb can not get accusative case, while in manner V-V compounds (adjunction to VP), it can do so. This is verified in examples like (4) and (5).

(4) Hanako-ga *shatu-o / yogore-o arai-otosi-ta.
    Hanako-NOM dirt-ACC/*shirt-ACC wash-remove-PAST
    Hanako washed off the dirt/*the shirt.

(5) Hanako-ga *(genkin-o) moti-aruite-iru.
    Hanako-NOM *(cash-ACC) hold-walk-Asp
    Hanako always takes cash with her.

To summarize, my claim that Japanese and Mandarin Chinese form V-V compounds based on different structures, VP-adjunction construction for Japanese and the small clause structure for Mandarin Chinese is supported by empirical evidence. The two verbs in Chinese V-V compounds can not have a modification relation such as manner because their syntactic relation is head-complement. As to Japanese, adopting
the VP-shell structure, there are two positions, i.e. vP and VP, for VP to adjoin to form V-V compounds. The difference in object inheritance in the two types of V-V compounds confirms this analysis.