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Contraction and Backgrounding in Taiwan Mandarin*

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Though the average speaker is often not very aware of it, phonetic contraction is a widespread phenomenon in Taiwan Mandarin; for example, ma^3shang^4 'immediately' is typically realized as $[m\alpha \ \alpha \eta \]$ or $[m\alpha \ fi\alpha \eta \]$ in relaxed conversational speech. The primary function of contracted forms is to background less important information, such as function words, adverbial modification, or the repeated part of reduplicated forms, thus helping the listener identify and focus on the highlighted or more important parts of the message. Due to the topic-comment structure of Chinese, in which the most important and relevant information comes last, contraction normally is not utterance-final except in the case of stable, established forms which contain a prominent, non-reduced syllable, or of parenthetical forms added as afterthoughts. Use of contracted forms varies according to the register of the discourse, the class and age of the interlocutors, personal speech habits, and emotional involvement in the subject matter. The rich system of contraction in Taiwan Mandarin suggests that it is a mixed system as regards syllable vs. stress timing, depending on the style and purpose of the discourse.

Key words: contraction, Taiwan Mandarin, backgrounding, elision, topic-comment, utterance-final, discourse, phonotactics

1. Introduction and background

Increasing attention is now being paid to how varieties of Chinese are actually spoken, rather than just how people *believe* they are spoken, or think they *should* be spoken. Corpora of spontaneous spoken language are greatly aiding in this study. One salient phenomenon of relaxed spoken language is *contraction*.

There have been quite a number of studies on contraction in Taiwan Mandarin in recent years, including Hsiao (1986), Yeh (1990) and Hsiao (2002). Research has also been done on contraction in Southern Min (e.g. Cheng 1985), Cantonese (Bauer and Benedict 1997:319, 324, Luke and Nancarrow 1999) and Hakka (Chung 1993, 1997). The fullest accounts on Taiwan Mandarin known to this writer are two excellent recent studies by Tseng (2003, 2005). Tseng uses spoken corpora and statistical methods to determine the types of morphemes and phrases where contraction occurs in Taiwan Mandarin, in addition to the phonological factors that condition it. The present study is an attempt to look more deeply at what factors condition contraction in Taiwan Mandarin, patterns of contraction, and the function of contraction in discourse and communication.

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Unlike other varieties of Chinese, Mandarin, as the standard national language, is closely tied to the writing system. Dialect writing is not as widespread, is often controversial, and one can perhaps approach dialects with fewer preconceptions stemming from school learning. It is interesting to note that, correspondingly, studies on contraction in English owe much to work on deletion and contraction in African-American Vernacular English (AAVE).

Average speakers seem to have little awareness of just how extensively contraction is used in spoken Mandarin. It usually requires a written form, such as the English $do\ not \rightarrow don't$, to make a language user aware of a contracted form.

Merriam-Webster's definition of contraction is: a shortening of a word, syllable, or word group by omission of a sound or letter; also, a form produced by such shortening. Reduction in the number of syllables of an utterance is not a requirement for contraction, as illustrated by the English forms $does\ not \rightarrow doesn't$, which are both disyllabic; contraction may involve simply loss or even just a weakening of a sound or sounds. The definition of contraction thus overlaps with elision, which is used here as a more general term referring to any kind of omission of a phonetic segment or segments.

Patterns of elision can vary over history. In English, for example, it's has replaced the archaic 'tis; 'twas has also disappeared, with no new contraction to replace it; one must say it was. Dobson (1974:101-102) collected a number of "allegro" forms from Early and Late Archaic Chinese, such as yan^1 , contracted from $yu^2 zhi^1$ 'in/at it/that place', and nai^4 , a contraction of ru^2zhi^1 'like this'. Dobson's examples are in all cases high-frequency function words, including negatives, final particles, demonstratives, and coverb + pronoun or pronoun + coverb combinations. These are similar to some of the kinds of morphemes that are contracted in modern Mandarin, English, and probably a multitude of other languages as well.

Some contractions from earlier forms of Chinese appear in modern speech in fossilized form, e.g. fu^4zhu^1 (= $fu^4zhi^1yu^2$) 'to attribute, to turn something over to', as in $fu^4zhu^1xing^2dong^4$ 'to put something into action'. Sometimes one also hears the full forms, which shows that the contraction is still analyzed into its component parts by some modern users, e.g. $bu^4gan^3fu^4zhi^1yu^2xing^2dong^4$ 'doesn't dare actually carry it out'. However, more and more often one hears expressions like $su^4zhu^1yu^2bao^4li^4$, with a redundant yu^2 , reflecting that the expansion of zhu^1 as zhi^1yu^2 has become opaque for some speakers.

Among the few other contractions enshrined in the written Chinese script and still in use are $beng^2$, from $bu^{(4)2}yong^4$ 'there is no need to'; nao^1 , ostensibly a contraction of bu^4hao^3 'not good', though the replacement of /p/ by /n/ remains to be accounted for; bu^4xiao^1 , a contraction of $bu^4xu^1yao^4$ 'it's not necessary'; the rare form $jiao^4$,

from zhi^3 'only', plus yao^4 'need', meaning 'needs only'; and po^3 , a contraction of bu^4ke^3 , used in the frozen expression $ju^1xin^1po^3ce^4$ 'to harbor an ulterior motive'. These are, however, mostly marginal forms and not direct products of elision in Taiwan Mandarin, so they will not be treated here in further detail.

More representative for contemporary Taiwan Mandarin is the form $jiang^4zi$ [sauce + (nominal suffix)] or $jiang^4zi$ [to descend + (nominal suffix)], contracted from zhe^4yang^4zi 'so, like this, in this way', which started appearing in casual writing some years ago. $Niang^4zi$ [to brew + (nominal suffix)], short for na^4yang^4zi 'so, like that, in that way' subsequently appeared, filling out the paradigm. Note how the theoretical retroflex [ts] in zhe^4 is assimilated to the following palatal glide [j] in $jiang^4zi$ to produce [tcjanyl tsi-l], represented here as [tcianyltsi-l]. The retroflex is called "theoretical", since the initial affricate and fricative series zh-, ch-, sh- is usually realized in Taiwan Mandarin as some phonetic form between the extremes of the retroflex [ts tsh s] and dental [ts tsh s] forms, with actual values centering around [tʃ tʃ^h ʃ]. The symbols [tʃ tʃ^h ʃ] are chosen to represent this set of sounds with the understanding that actual values vary quite considerably in microincrements. This kind of allophonic variation is described in detail in Rau (1994), and will not be further addressed here, since it is tangential to the issue of contraction.

Contraction is not a simple function of rapid speech; many radio and television commercials and news reports, for example, are delivered extremely rapidly, but may exhibit no evidence at all of contraction. On the other hand, a speaker might be talking relatively slowly and still use contraction extensively. Contraction is most typical of a relaxed, conversational speaking style, and is less common in more formal speaking styles in which one is self-consciously trying to speak "correctly", precisely and authoritatively.

Elision and contraction are phenomena that fall on a continuum of *backgrounded information*. Backgrounding of information can be achieved through a variety of written and spoken language forms, ranging from contractions, formal abbreviations, nicknames, acronyms, and initials, to pronouns, other function words, and unstressed and neutral tone syllables on the word, phrase, and sentence levels. In many ways, contraction in Taiwan Mandarin can be compared to use of the neutral tone in Beijing Mandarin; both are phonetic realizations of *reduction* (Jiang 1956, Lin 1962).

Data used in this paper were collected from a tape-recorded corpus of about 13-1/2 hours of mostly casual spoken Taiwan Mandarin as used in call-in radio programs, supplemented by observations of the speech of family members, friends, colleagues, lecturers, and various people in public places heard by chance. Pinyin Romanized forms are used to refer to a more or less standard realization of a linguistic form in actual speech; bracketed IPA symbols are used to represent spoken forms that

somehow deviate from the standard, in particular, contracted forms.

2. Data and analysis

In this section, we will look at some of the data collected, and classify it by type; then we will look into the role and special characteristics of contraction in spoken Mandarin.

Contractions cannot be considered in isolation; they are the flip side of the "focus" coin. Contractions are part of the prosodic gearwork in Mandarin in which new information is emphasized, and old, backgrounded. Chinese sentences typically exhibit a topic-comment structure: the utterance-initial "topic" contains background knowledge presumably shared by the speaker and listener, so it is often fast and slurred; the utterance-final "comment", which is the part assumed to be new information of central interest to the listener, is uttered more slowly, loudly and clearly, to highlight its higher information value.

An important finding of this study concerns the relative position of contracted forms in discourse. Like with some tonal sandhi systems (e.g. Mandarin and Southern Min), there is a tendency for contracted syllables in Mandarin to avoid utterance-final position. There is a comparable phenomenon in English: to answer the question "Is that it?", one may not say *"Yes, it's." but must rather say: "Yes, it is." Contractions containing negation, such as don't, doesn't, and aren't, on the other hand, are allowed in utterance-final position. Elision is also less likely to occur immediately before a pause in the discourse. Contraction in Mandarin, however, differs considerably from English patterns and is subject to some uniquely Chinese conditions.

The restrictions on what contracted forms may and may not be utterance-final reflect the topic-comment structure of Chinese syntax. Since contractions are a form of phonological reduction, they are at odds with the usual correlates of material in utterance-final position, i.e. that it is vocalized more emphatically. A contracted form may be utterance-final if (1) it is part of a stable, established form containing a prominent full syllable; this can include forms with a neutral-tone suffix; or (2) if it is part of a parenthetical afterthought rather than the "comment" of a topic-comment structure, thus removing it from the "hot seat" of an emphasized utterance-final comment.

Included under Type One are first, simplifications of reduplicated forms, such as the contraction of xie^4xie into [cie:\], of ba^4ba 'Dad' into [pa:\] and of shu^3shu^2 'Uncle' into [$\int u d u d$]. These can easily stand alone, as an emphatic interjection in the case of the first example, or as terms of address in the other two examples. The

second syllable is redundant in all these examples, since it only repeats phonetic and semantic information given in the first syllable. That it is not completely dropped can be seen in the lengthening of the final vowel, seen in all three examples, or in the composite tone shape, as in the 'Uncle' example.

Second, established disyllabic contractions can sometimes be utterance-final if they are not discourse function words like ran^2hou^4 'and then' – these are ruled out from being utterance-final by semantics – and if they are established forms containing a prominent, non-reduced syllable. Examples $bu^{(4)2}yao^4 \rightarrow [piau?V]$ 'I don't want it, no', the above-cited $zhe^4yang^4zi \rightarrow jiang^4zi$ [tçiqn\\ tsi\], and the plural pronoun $ta^{1}men^{2} \rightarrow [t^{h}a^{\dagger} m^{\dagger}]$ 'they, them'. Forms with a neutral-tone suffix are allowed; neutral-tone suffixes are reduced forms to start out with, and contraction takes the process one step further. Suffixes that are not pronounced with a neutral tone will not be reduced, e.g. the hua^4 '-ify' in $l\ddot{u}^4hua^4$ 'to greenify'.

Finally, trisyllabic contractions, or ones with more syllables, like the Xin¹sheng¹ $nan^2lu^4 \rightarrow [\tilde{g}i\dagger \tilde{g}n\dagger nan\dagger lu\dagger]$ 'Xinsheng South Road' example cited below, may also be utterance-final. Tseng (2003:10) notes that in her data only 9% of all contracted items were trisyllabic, as opposed to 74% which were disyllabic; units of more than three syllables were not counted. Saying that disyllabic expressions are the most commonly contracted prosodic unit is probably correct as far as it goes; the vast majority of Chinese lexical items are disyllabic. But since contraction occurs most often when a reduced form is not utterance-final, prosodic units three syllables in length are favored for contraction. What is interesting in these cases is that the expression must contain at least one full, emphatic syllable which is usually in final position; the form cannot end with a reduced syllable unless it is a neutral-tone suffix. Thus the whole expression is a miniature version of a topic-comment sentence structure: reduced forms are allowed in second position of the contracted form, but the final syllable must be full and emphatic (with a special allowance for neutral-tone suffixes; in that case it is the penultimate or even antepenultimate syllable that is most station' is a possible stand-alone answer to the question Ni^3 qu^4 $na^{(3)2}$ li^3 ? 'Where are you going?' But the answer to $Ni^3 zuo^4 she^2 me che^1$? 'How are you getting there?' must be a full $huo^3 che^1$; replying with the reduced version of the first two syllables of 'train station' [huɔl ɣ1] would be impossible. So the tendency for reduced forms to avoid utterance-final position is not simply a matter of coming at the end of an utterance or not; it is, rather, closely tied to the topic-comment structure of Chinese syntax, and it is subject to parallel restrictions.

Included under Type Two of possible utterance-final contracted forms are parenthetical phrases added as afterthoughts, often as reinforcement of a point, or a kind of icing on the cake. For example, the phrase $wo^3 jue^2 de^2$ 'I think, in my opinion', uttered after the comment portion of a statement, may come out as [[5 $\sqrt{3}$] tçy $\sqrt{3}$], and it will have low prominence; though it is final in the utterance, it does not occupy the "comment" slot.

A notable difference between Mandarin and English contraction use observed in the radio corpus: in much of Mandarin radio broadcasting, even during what sounds like completely ad lib banter, there is often very little contraction at all, sometimes none. Radio hosts tend to enunciate each word clearly, even when making jokes. In English, even in the most formal news broadcasting styles, established contractions like *don't* and *aren't* are very frequently used. However, informal contractions like *wanna* and *gonna* tend to be avoided.

In addition to reflecting the *information structure* of an utterance, elision is also an index of the interpersonal dynamics of a conversation. Contraction in Mandarin radio doesn't usually appear until a considerable level of informality is achieved, often through interaction in relaxed conversation rather than in a monolog or formal interviewing situation. When speaking with others, we are constantly making adjustments in what we say, how we say it, and how much we say, based on feedback we receive from our interlocutors. Though contracted forms are often perceived as being largely optional, speech that does not use the forms where called for will sound stilted and rhythmically bloated. Giving full syllabic value to each morpheme in a sentence would convey one or more of a whole range of possible extralinguistic messages: strong, possibly inappropriate emphasis, impatience, naïveté, repetition for clarity, a patronizing attitude, punctiliousness, or poor language skills. The odd prosody might be overlooked or indulged – perhaps patronizingly – if the one who uses it is not a native speaker of Mandarin, or of Taiwan Mandarin. On the other hand, unless a second language speaker is quite adept at the language, inserting the contracted forms in a mechanical way would also sound odd and not quite appropriate to their level of facility in the language.

Contractions are thus one sort of "corrective" applied to fine-tune the balance between information value and the number of morae in an utterance. Adjusting the rhythm in this way is a highly sensitive operation. It is something that humans do instinctively and easily, but so far it has proven nearly impossible to emulate it in synthetic speech, as observed by Nooteboom (1997:660). Contraction use helps the listener, who is subjected to a barrage of sound signals, to choose what is really important and worth focusing attention on, because a listener is not likely to use their full concentration to catch every syllable. This raises the efficiency of the communication act for both sides: the speaker saves effort, and the listener is presented with a pre-highlighted text.

Tseng (2003:8) notes that although the contracted forms exhibit considerable variation, they nevertheless fall along a continuum pointing to a common target. A contraction extracted from running speech and heard in isolation is often completely unintelligible; it is frequently more of a cue or *intention* rather than an actual realization of a morpheme or expression. Our brain, based on semantic prediction, knowledge of grammar, and previous hearings of contractions, fills in the blanks, and we hear contractions as though they were "whole", or more whole in any case than what is present in the acoustic signal. Nooteboom (1997:668) says: "...in normal speech a great many phonemes are very rapidly produced, becoming grossly degraded to the extent that they become unidentifiable without context, or even are completely deleted. We may imagine that if this were not so, speech would become much too slow for the listeners to keep attention focused on the contents of the message."

When a contracted form is used often enough, the acoustic shape of the reduced syllables leaves a lasting impression on collective listeners, and in this way it begins to establish itself as an acceptable variant of the syllable in similar contexts. Over time the patterns that happen to be chosen for realization become generalized into *rules* which can be applied in a number of other situations in similar environments and with shared characteristics.

There does not seem to be much problem with ambiguity in the use of contracted forms; people tend to use them in stereotyped ways, so they are expected and easily deciphered. And language will only allow "sloppiness" to the extent that it does not cause great problems in perception and decoding. Of course, certain *individuals* may have problems with the forms, due to a lack of familiarity with the speaker and their speech habits, or with current patterns of casual speech, e.g. due to such factors as age, and/or a low level of contact with modern culture and the media or young people; poor hearing; or insufficient facility in the language to easily understand the reduced forms. In such situations, repetition and more careful enunciation may be required for clarification and disambiguation. These situations may possibly cause impatience on the part of the speaker, embarrassment in the listener, and frustration on both sides.

As Labov (1969) discovered with African American vernacular English, contracted and deleted forms are typical of the speech of people belonging to a *group* culture. Those who are isolated use fewer of these allegro forms, and don't use them consistently or "correctly" according to group standards. So while contractions may be considered by some to be indicative of "sloppy" speech, they are also a product of socialization. Failure to use them marks one as an outsider in some way; this is typical e.g. of a foreigner's speech.

Regarding the types of words that are contracted: as Tseng has noted (2003:8-9), and as is the case in the examples from classical Chinese, contraction is especially common in the articulation of various kinds of *function* words and expressions. These include pronouns, adverbial expressions, coverbs, connectors, discourse markers, and pause fillers which carry mainly structural rather than lexical meaning; their information value is thus relatively low compared to lexical content vocabulary.

Below are listed some sample data in these categories collected from the corpus.

Pronouns

Pronouns are already reduced markers for full nouns that are "given" or "old" information, and they tend to be unstressed; they may be further reduced through contraction in non-emphatic contexts.

- (1) $wo^{3} [3\sqrt{3}]$ 'I'
- (2) ni^3 'you' may be $[n\]$, as in: $qing^3ni^3$ $deng^3yi^1(^2)xia^4$ 'Please wait a minute' \rightarrow $[tc^hin\]$ $n\]$ $t\tilde{a}$ $i\]$ $cia\]$; ni^3 zhi^1dao^4 ma? 'You know?' \rightarrow $[n\]$ $t\]$ $t\]$ $tav\]$ ma\]
- (3) ni^3men 'you (pl.)' \rightarrow [ni \sqrt{m}]
- (4) $ta^{1}men^{2}$ 'they, them' $\rightarrow [t^{h}a^{\dagger} m^{\dagger}];$ third-person object pronoun
- (5) ta^1 'he/she/it'/ ta^1men 'them' \rightarrow [α 1], [$h\alpha$ 1] or [$f\alpha$ 1]/[$f\alpha$ 1] after the object marker ba^3 or other 'case' markers like dui^4 'to, towards', gen^1 'with', and gei^3 'to', where it is unlikely to be utterance-final. $gan^3kuai^4ba^3ta^1kan^4wan^2$ 'hurry and finish reading it' \rightarrow [$k\alpha$ 1] $p\alpha$ 3 $f\alpha$ 1 k^{h} 8] wan1].

(Even though ba^3ta^1 is a syntactic phrase, it is very likely to be stored in the brain as a single chunk, as many contractions probably are.)

- (6) da^4jia^1 'everybody' is almost always reduced from [ta\lambda t\cia\dagger] to [ta:\dagger] in casual conversation.
- (7) $ren^2 jia^1$ 'somebody, someone else, I', \rightarrow [$\tilde{1}$ 3 1 3 1 3]
- (8) zi^4ji^3 'self', \rightarrow [ts₁\(\frac{1}{2}\)i\\]
- (9) $ben^3 shen^1$ 'him/her/itself', \rightarrow [pə̄\ ʃə̄¹] or [pə̄\ fiə̄¹]

Historically, the second person formal pronoun nin^2 developed, as in many other languages, from the plural second person pronoun, ni^3men , so it is a product of contraction. But due to its reanalysis as a formal *vous*-type pronoun, it is no longer transparent or perceived as a contraction or plural at all. And because it is a marked, self-conscious pronoun of politeness, it is usually a stressed and clear monosyllable. One sometimes also sees the doubly-suffixed form nin^2men used as the plural of the formal 'you'.

Common adverbial expressions

Adverbs are considered by Wang (1987:21) to be somewhere "between a content and function word"; thus when more functional in nature, they are often deemphasized through contraction.

Time expressions

- (10) $ping^2 chang^2 \rightarrow [p^h i \uparrow a \eta \uparrow]$ 'usually, normally'
- (11) $tong^1 chang^2$ 'usually' $\rightarrow [t^h \tilde{3} \uparrow a \eta \uparrow]$ (but *not* the adjectives $fan^3 chang^2$ 'abnormal', or $xun^2 chang^2$ 'common')
- (12) $xian^4zai^4$ 'now' \rightarrow [$ci\tilde{c}$] aid]
- (13) $ma^3 shang^4$ 'right away, immediately' \rightarrow [ma\ aŋ\] or [ma\ haŋ\] or [ma\ han\]
- (14) gan^3kuai^4 'right away' $\rightarrow [kan \lor wai \lor]$
- (15) $zao^3 shang^4$ 'in the morning' \rightarrow [tsau\ an\] or [tsau\ han\]
- (16) jin^1tian^2 'today' $\rightarrow [t\tilde{g}i\dagger gn\dagger]$

Locative expressions

(17) dao^4chu^4 'everywhere' \rightarrow [taou:\], as in $dao^4chu^4 dou^1you^3$ 'It's everywhere.' \rightarrow [taou:\] tou\]

Adverbs of manner

- (18) $tu^2 ran^2$ 'suddenly' \rightarrow [than1]
- (19) $yi^1(^4)qi^3$ 'together' \rightarrow [i\lambda i\lambda], as in $yi^1(^4)qi^3qu^4kan^4dian^4ying^3$ 'Let's go see a movie together'

Intensifiers

(20) $fei^1 chang^2$ 'very, extremely' is often contracted to $\rightarrow [fei^1 chan^2]$ or $[fei^1 han^2]$

Sentential adverbs, conjunctions/connectors, discourse markers and pause fillers

- (21) ran^2hou^4 'and then' $\rightarrow [1\tilde{a}^4]$ o\], $[\tilde{a}^4]$ o\]
- (22) $dang^1 ran^2$ 'of course' \rightarrow [tã \(\tau\). $\text{I} \(\text{I} \)] or <math>[t \(\tilde{a} \)]$
- (23) da^4gai^4 'generally, approximately' \rightarrow [ta\] ai\]
- (24) jiu^4shi^4 'it is' \rightarrow [tciou] [4]
- (25) $shi^4shi^2shang^4$ 'in fact' $\rightarrow [fill fanl]$
- (26) fan^3zheng^4 'anyway' \rightarrow [fã\ .jəŋ\] or [fã\ əŋ\]
- (27) $jian^3zhi^2shi^4$ 'it simply is...' \rightarrow

- (28) qi^2shi^2 'actually' [tchi1.11]
- (29) jie^2guo^3 'in the end, finally' \rightarrow [tçiɛ¹ uɔ\]
- (30) yin^1wei^4 'because' $\rightarrow [i1]^we1$
- (31) $hao^3 xiang^4$ 'it seems' \rightarrow [hau\ an\]
- (32) $hou^4 lai^2$ 'later, and then' \rightarrow [hou'l ai/l]
- (33) suo^3yi^3 'so, therefore' \rightarrow [suɛi $\sqrt{}$]
- (34) $er^2 qie^3$ 'and furthermore' $\rightarrow [\Im qie^3]$
- (35) $sui^1 ran^2$ 'although' \rightarrow [s^we¹ .ĩã¹] or [s^we¹ .ɪn]

- (36) ke^3shi^4 'but' $\rightarrow [k^h \Rightarrow N]$ or $[k^h \Rightarrow N + M]$
- (37) $dan^4 shi^4$ 'but' [tã\ 14]
- (38) $bu^{(4)2}guo^4$ 'but, however' \rightarrow [pulubl]
- (39) $bu^4 ran^2$ 'otherwise' \rightarrow [p.ian]⁴]
- (40) ru^2guo^3 'if' $\rightarrow [\mathfrak{gu}^1 \cup \mathfrak{gu}^1]$
- (41) chu^2le 'except' [tʃhu1 ə1]
- (42) zhe^4zhong^3 'this kind of' $\rightarrow [t\int^h 20\eta V]$
- (43) na^4zhong^3 'that kind of' [nəɔŋ\]

That function words are reduced in some way is not really surprising; they carry a low information load, and thus the listener doesn't need to hear them enunciated carefully once they get the sense of their meaning from a first syllable. But in fact many content words, such as common nouns, are contracted as well. There are, however, some restrictions. First, the items tend to be tri- or even tetrasyllabic, with the second element being elided. Second, they are familiar and high-frequency items, such as vehicle types. Proper nouns, like personal names, may also be elided if they are very familiar to the speaker and listener. Titles, like 'Mr.', are often reduced. And while full verbs are not as likely to be contracted, verbs that take clausal objects, auxiliary verbs, and verbs with grammaticalized complements are often reduced, since they are thus not in stressed, utterance-final position. Also particles that are contained in verbs, like de^2 (verbal particle of ability), bu^4 'not', and xia^4 'down, below', are often reduced. The "it" pronoun ta^1 is often reduced when it comes after the object marker ba^3 , a construction which cannot be utterance-final, but leads up to some kind of telic verb, e.g. $ba^3 ta^1 zuo^4 wan^2$ [pa\ a\ tsuo\ wan\] '(take it and) finish it'. There are also some set patterns of reduction for numbers.

Common nouns

- (44) $jiao^3ta^4che^1$ 'bicycle' \rightarrow [tçiau\ a\ t\f\^h\a\] (English bike, Spanish bici), but $jiao^3ta^4shi^2di^4$, [tçiau\ ta\] fi\ ti\], not *[tçiau\ a\] fi\ ti\]
- (45) Disyllabic huo^3che^1 'train' is not reduced, but the trisyllabic $huo^3che^1zhan^4$ 'train station' often is: $[huo\sqrt[3]{3}]$
- (46) $fei^{1}ji^{1}$ 'airplane, plane' also does not reduce, but $fei^{1}ji^{1}chang^{3}$ 'airport' becomes [fei † i † t[anv]]
- (47) $si^{1}ji^{1}$ 'driver' used alone is not reduced, but it becomes [s₁7 i¹] if something follows it, as in $si^{1}ji^{1}$ shuo¹ 'the driver said...'
- (48) $ji^4 cheng^2 che^1$ 'taxi' (originally 'taximeter cab') \rightarrow [tçi\] ən\[t\[\frac{1}{2} \]
- (49) $mo^2 tuo^1 che^1$ 'motorcycle' $\rightarrow [mus1 s1 tf^hs1]$
- (50) $gong^1gong^4qi^4che^1$ 'bus' $\rightarrow [kxy] \forall tc^h i \forall t [\epsilon^{\dagger}]$
- (51) $xue^2 sheng^1 zheng^4$ 'student ID' \rightarrow [$\varphi y \varepsilon 1 \Rightarrow \eta 1 \xi \Rightarrow \eta 1$
- (52) $bi^3ji^4xing^2 dian^4nao^3$ 'notebook computer' \rightarrow [pi\ i\ cin\ ti\ nau\] but: $xie^3bi^{(3)2}ji^4$ 'take notes' \rightarrow [cie\ pi\ tci\], not *[cie\ pi\ i\]

(53) $jia^1ting^2lian^2luo^4bu^4$ 'assignment notebook' \rightarrow [tçia ˈˈ iŋ/l liɛn/l luɔ ˈˈ pu ˈ] (sometimes jokingly called $jiang^4you^2bu^4$ 'soy sauce notebook' by certain informants) but $xing^4fu^2jia^1ting^2$ [cin ˈˈ fu/l tcia ˈˈ tiŋ/l], not [cin ˈˈ fu/l tcia ˈˈ iŋ/l]

Proper nouns and titles

- (54) $xian^1 sheng^1$ 'Mr.' $\rightarrow [\emptyset i\tilde{\epsilon}^{\dagger} . \emptyset n]$ or $[\emptyset i\tilde{\epsilon} \circ \eta]$
- (55) tai⁴tai 'Mrs.' [than], also reduplication
- (56) $Chen^2 Shui^3 bian^3$ 'Chen Shuibian' $\rightarrow [t] \tilde{\mathfrak{d}}^{\dagger}$ werd pienv
- (57) $Zhang^1 Xuan^1 jue^1$, 'Chang Xuanjue' (personal name) $\rightarrow [t \int a\eta^{-1} yan^{-1} t \xi y \epsilon^{-1}]$
- (58) $lao^3 shi^1 shuo^1 \rightarrow [lau \lor i \uparrow \int u \downarrow 1]$, but $lao^3 shi^1 \rightarrow [lau \lor j \downarrow 1]$, not *[lau \ i \]
- (59) $Xin^1dian^4 sht^4gong^1suo^3$ 'Hsintien City Hall' $\rightarrow [\mathfrak{cil}]\mathfrak{jen} \setminus \mathfrak{fl} k\mathfrak{shl} \mathfrak{suol}$
- (60) $Min^2jin^4dang^3$ 'DPP' $\rightarrow [mi1 inV tanV]$
- (61) $Xing^2zheng^4yuan^4$ 'Executive Yuan' $\rightarrow [cin 1 cin 1$
- (62) $zong^{(3)2}tong^{(3)2}fu^3$ 'Presidential Office' \rightarrow [tsɔ̃+] ɔŋ̯1 fuv], but $zong^{(3)2}tong^3$ 'presidential' \rightarrow [tsɔŋ+] thoŋv], not *[tsɔ̃+] ɔŋ[v]
- (63) $Xin^1 sheng^1 nan^2 lu^4$ 'Xinsheng South Road' $\rightarrow [\tilde{gi} \uparrow gn \uparrow nan^4 lu \lor]$.

Verbs

- (64) fa^1xian^4 'to discover' \rightarrow [fa[†] jɛn \forall], [fa[†] hjɛn \forall],
- (65) $jue^2bu^4jue^2de^2$ 'do you think so?' \rightarrow [tçyɛb1 tçyɛ:1]
- (66) ji^4de^2 'remember' \rightarrow [tçi\] ə\]
- (67) $xiao^3 de^2$ 'to know' \rightarrow [giau $\sqrt{94}$], but $she^3 de^2$ 'to be able to part with' requires a full form
- (68) $mai^3de^2qi^3$ 'to be able to afford' \rightarrow [mail of tchil]
- (69) jin^4lai^2 'to enter' \rightarrow [tçī] ai]
- (70) $jin^4qu^4kan^4$ 'go in and look around' \rightarrow [tcin'l y'l khan'l]

Numbers

There are contracted written forms for 20 and 30: $nian^4$ 'twenty' and sa^4 'thirty'; spoken forms tend to incorporate the second syllable by lengthening a possibly reduced first syllable. The information value of '10' seems quite low; this is not true of higher place holders like 100 or 1,000.

(71)
$$san^1 shi^2 si^4$$
 '34' $[s\tilde{\alpha}: 1 st V]$ (72) $wu^3 shi^2 liu^4$ '56' $[wu: V]$ liouV].

Reduplication, morphological/syntactic

 [mail meil]); both examples are taken from Beijing Mandarin. In Taiwan Mandarin, the second syllable is often elided into the first, sometimes leaving just one syllable with a considerably lengthened main vowel, which is usually enough to signal that it is a reduplicated form.

Different morphemes with the same syllable shape but different tones may be elided in a similar way: $gong^1gong^4 qi^4che^1$ 'bus' may be pronounced as $\lceil k \cos \eta \rceil t e^h i \rceil t \lceil e \rceil \rceil$.

```
    (73) xie<sup>4</sup>xie 'Thanks.' [çiɛ:\]
    (74) gang¹gang¹ 'just now' [kɑːŋ¹]
    (75) chang²chang² 'often' → [tʃʰɑːŋ¹]
    (76) tian¹tian¹ 'daily, every day' as [tʰjɛ̃:]
    (77) shi²shi² 'constantly, all the time' as [ʃɛː¹]
    (78) ren²ren² 'everybody' as [ʃɛː¹]
    Family member titles
    (79) ba⁴ba 'Dad' [pɑː\]
    (80) shu²shu [ʃu-ˈˌu¹] '[younger paternal] uncle'
```

Family member titles with bilabial initials, like bo^2bo 'uncle' (father's elder brother) and po^2po 'grandmother', are less susceptible to contraction; ba^4ba is a notable exception.

Repetition, pragmatic

With larger chunks the first utterance is usually clear, subsequent ones slurred.

(81) zhang³de fei¹chang² fei¹chang² de ke³ai⁴ 'she's very, very cute', is uttered as [tʃaṇ√tə+ fei¹tfʰaŋ¹ fei¹ ʰaŋ¹ tə+ kʰɤ√ ai√]

Interjections and stock phrases

Interjections and stock phrases, being highly stereotyped and familiar items, are subject to contraction. *Chengyu*, or ready-made phrases, tend to contain contracted forms *when used adverbially*. If a saying is being used to make a point rather than to add to the background description, it is not contracted.

- (82) $jiu^4shi^4shuo^1$ 'Yeah, that's it!' \rightarrow [tçiou\ 14] [uo1]
- (83) $zhi^1bu^4zhi^1dao^4$ 'you know?' $\rightarrow [t \int_{\mathbb{R}} b dt] t \int_{\mathbb{R}} dt dt$
- (84) $shi^4bu^{(4)2}shi^4$ 'isn't it?' $\rightarrow [\int_{\mathbb{T}}b d \int_{\mathbb{T}}d$
- (85) $mei^2 guan^1 xi$ 'it doesn't matter' $\rightarrow [meil \ ^w \tilde{e}^{\dagger}]$ or $[meil \ ^w \tilde{e}^{\dagger}]$ [1]
- (86) $deng^3 yi^{1(1)2} xia^4$ 'wait a minute' $\rightarrow [t\tilde{a} \lor hi\tilde{a} \lor]$
- (87) $gan^4 she^2 me \rightarrow gan^4 ma^2$ 'what are you doing/what for?' \rightarrow [kã\\ mo\]]
- (88) $wei^4 she^2 me$ 'why?' \rightarrow [well 194 moll] or [well 94 moll] (but the response: $mei^2 you^3 wei^4 she^2 me$ is not reduced).

Chengyu when used adverbially.

- (89) $ta^1 jiu^4 shi^4 yi^{1(1)4} ma^3 dang^1 xian^1 qiang^3 zai^4...jiu^4 shi^4 che^1 men^2 qian^2 a$. 'He ran in a rush ['to be the lead horse'] to the bus door.' with jiu^4shi^4 pronounced as [tcjə\l.t.l] and as [i\lma\landan] and an
- (90) zen³me hui⁴ zai⁴ zhong⁴mu⁴ kui²kui² zhi¹xia⁴ zuo⁴chu¹ zhe⁴zhong³ shi⁴qing² ne? 'How could they actually do such a thing in broad daylight?' with zhong4mu4 kui2kui2 pronounced as [tʃɔŋ] mu] k^h wei\we\dagge\, zhi\dagge\, zhi\dagge\, as [ts\dagge\dagge\, hja\dagge\], as zuo^4chu^1 [tsuo\dagge\, u\dagge\], as [tso\dagge\].

The following are examples of uncontracted *chengyu* quoted as proverbs or used to make an important point.

- (91) $ju^4san^4you^3shi^2$ 'There is a time for being together, and a time for separation.'
- (92) $yuan^2 feng^1 bu^{(4)2} dong^4 o^1$ 'It was left fully intact' (This referred to other items in a motorcycle storage box after a wallet was stolen from the box.)

Negative elements

Negation is so frequent that it tends to be a highly grammaticalized feature of any language, and thus subject to elision. Yaeger-Dror (1997) also points out that contraction is one way of keeping the focus away from negative elements in interpersonal reactions, for reasons of courtesy and face-saving. Yet negation also has an unusually high information value in almost any context. So we see the factors of high frequency and avoidance of focus on negative elements favoring elision on the one hand, competing with a need for clarity due to high information content, thus favoring full forms, on the other. The results of this conflict can often produce confusion; for example, can and can't are not always easy to distinguish in US English. The same can happen in Mandarin with $bu^{(4)2}yao^4$.

(93) $bu^{(4)2}yao^4$ 'No, I won't.' \rightarrow [piau?V], which is not always easy to distinguish from the affirmative yao^4 Yes, I want it.' \rightarrow [jau?\]

This seems to be an example where the tug-of-war between phonetic reduction and clarity sometimes fails to find a workable and mutually agreeable meeting point.

Some contractions are conscious creations. These fall under a special category of contraction in which low-information morphs are intentionally fused into a new whole with a new meaning bearing a higher information value - a kind of 'morphological poetry'. The main example in this category is the expression biang⁴, a popular slang word for 'Super!' It contracts $bu^4yi^{(1)2}yang^4$ 'different', into just one syllable, usually written in Mandarin Phonetic Symbols as ケー大、. Though it violates Taiwan Mandarin phonotactics, biang⁴ is a possible syllable in Taiwan

Southern Min, and this certainly reinforces its existence and currency in Mandarin. $Biang^4$ is successful and widespread to the point that it is beginning to lose transparency regarding its origin.

Although *biang*⁴ follows rules similar to naturally-occurring reduction and elision, it is different in that it was *consciously composed*, just as a poem is a conscious bringing together of words and ideas, while naturally occurring contraction is simply compression as a backgrounding strategy, with a much lower level of conscious awareness.

3. Surface phonetics and possible new phonological types

In the data used for this study, the sounds found most likely to be elided are oral coronal consonants, i.e. apical/dental, alveolar or palato-alveolar (the usual Taiwan realization of Beijing "retroflexes") stops, fricatives, affricates, or approximants. This includes the consonants:

Bilabial and alveolar nasal initials tend not to be elided. Initial glides may be dropped. Alveolar nasal finals are subject to allophonic assimilation to vowel or glide initials, which does not count as contraction. Both alveolar and velar nasal endings may be dropped in casual speech, leaving only a nasalized vowel.

Velar stops [k] and [kh] may be elided, but less often than coronals, e.g. $mei^2guan^1xi^1$ [meid wæt çit] and da^4gai^4 [tal aid]. Oral labials [p ph f] seem quite resistant to elision; expressions such as li^2pu^3 "off the wall", "OTT [over the top]", he^2ping^2 'peace', ti^2bao^4 'to report', $feng^1bo^1$ 'wind and waves, disturbance', are not normally elided. However, one frequent exception is gen^1ben^3 'at all, completely'.

(94)
$$ta^1 gen^1 ben^3 jiu^4 bu^4 xiang^3 qu^4 [t^h a^{\dagger} k \rightarrow m \cdot \forall t \in bu \lor t \in h v \lor]$$
.

As Tseng (2003:26-27) notes, this creates a phonotactically "impossible" syllable type ending in a bilabial nasal, as also happens with the plural pronouns. Some contracted syllables conform to the phonotactic rules of Mandarin, others do not. The latter type with its marginal syllabic structure is rather unstable and displays great regional and individual variation. From the phonological point of view, these forms are monosyllabic only in phonetic realization; the *potentialities* behind them (i.e. disyllabicity) remain the same in the mind of the listener and speaker. This is comparable to how English utterance-initial voiced initial stops such as the /b/ in *boy*

are usually devoiced, but remain potentially voiced.

Although it does not currently seem likely, another new phonological type may possibly be developing in Taiwan Mandarin: distinctive vowel length. contracted form for da^4jia^1 'everybody' [ta: \dagger], sounds much like the word da^1 [ta \dagger] 'to ride in a vehicle'. The average length of da^4jia^1 [tarl] is about 250ms; for da^1 , This difference in length is a surface phenomenon due to contraction; 150-170ms. yet over time, Mandarin could, like Cantonese, develop length as a distinctive feature through extensive contraction.

Regarding the tone values of contracted syllables, contractions often come out sounding like one prolonged syllable, and may appear on a spectrogram with an unbroken voice bar and straight formant lines. The tone pattern is difficult to predict, but is typified by flatness or only gently sloping contours, products of simplification and the short durations involved. Running a pitch track analysis on a contraction typically reveals a two-step pattern of shortened, flattish, connected versions of the original tones. An anomalous tone pattern is often one of the main distinctions between a canonical and a contracted syllable.

Another important question is, just how much of relaxed spoken discourse is contracted in Taiwan Mandarin? Tseng (2003:9-10) cites an average of 32%. No percentage is offered here for the radio corpus, because the frequency of contraction use varied so widely. An average value would be misleading; it would be far too high for the many long stretches where no contracted forms at all may be heard, and too low for portions where contraction use is particularly prominent.

The general pattern observed in the radio data was: very infrequent use of contracted forms at the beginning of each program, and as each new caller was introduced; also, during the interludes between calls. The beginning of each new conversation also tended to have few contracted forms on either the caller's or the host's side. Where contraction use suddenly took off was when one or the other side, usually the program host, audibly took a personal interest in the topic being discussed. At that point she would sound especially warm and excited, and as though she had let her guard down a bit and was being thoroughly sincere rather than just trying to do a polished job of hosting the program. This offers valuable insight into the use of contracted forms: they are for when you kick your shoes off and are just yourself, without trying to impress or maintain a dominant and authoritative position in managing a discourse. One indication of how representative this corpus is of ordinary conversation came in the form of a meta-comment by a caller: he described the host's spoken style as "very natural".

The following is an example from a portion of a call-in program marked by frequent contraction use, to illustrate how far contraction can go in a single utterance. In this 26-syllable example sentence which appeared toward the end of a discussion with a caller, elision occurred in over half of the syllables, i.e. seven pairs, or 14 syllables in all. The sentence summed up and made a commentary on the preceding discussion, and included many 'stock' contractions.

(95) Shuo¹dao⁴ mei²jia¹jiao zhe⁴ jian⁴ shi⁴qing², hao³xiang⁴ xian⁴zai⁴ da⁴jia¹ hen³duo¹ren² xin¹li³tou² dou¹you³ gan³chu⁴ e.

'When it comes to the matter of poor upbringing, it seems now as though everybody, lots of people have strong feelings (in their hearts) [about this].'

The sentence was actually uttered something like this.

```
[ʃuɔ] taul meil tçia] tçiaul tʃɛljɛnl ʃɪliŋl |
haulanl çjɛ̃larl tral hənl tuɔ] rɛnl çı̃lil thoul tou]oul kanl tʃul el]
```

It is important to note what is enunciated most clearly: the *topic*, 'poor upbringing'; the extent of the phenomenon: 'lots of people', which is perhaps more a filler to break up elided background information and to adjust the rhythm, than a lexically significant phrase; and finally and most importantly, the *comment*, namely 'strong feelings'. The other elements of the sentence slip easily into the background to allow the most important bits of information to be highlighted and transmitted in the clearest and most attention-drawing way.

4. Conclusion

Contraction is a widespread phenomenon in Taiwan Mandarin, despite the near absence of reflections of it in the standard written language, and the resulting low awareness of it on the part of speakers. Contractions are used most often to background various bits of an utterance that have a low information value, to help the listener focus on the important information, which will be spoken more loudly, with a longer duration, and more clearly. Due to the topic-comment structure of Chinese, in which the most important and relevant information comes last, contractions are not normally utterance-final, except when either especially emphatic and equivalent to a sentential "comment", or when they are parenthetical afterthoughts. The extent to which contracted forms are used depends on the register of the discourse, the class and age of the interlocutors, their relationship with and attitude toward each other, their personal speech habits, and their emotional involvement in the subject matter.

Tseng (2003:5) cites Auer and Uhrmann (1988) as saying that Taiwan Mandarin is

a syllable-timed language. The rich system of phonetic contraction in Taiwan Mandarin suggests that it in fact is a *mixed* system as regards syllable vs. stress timing, depending on the speaking style. Careful news reading, for example, is closer to syllable timing, and casual conversation tends toward a variety of stress timing. Mandarin does not have lexical stress like English, but extensive use of contracted forms changes the rhythm of speech from a more even, syllable-by-syllable flow to a bouncier series of ups and downs created by foregrounded and backgrounded material. There was not opportunity to explore this phenomenon in depth in this study; it is suggested here as a promising area for further examination.

Comparison of contracted forms in Taiwan Mandarin with those in Beijing Mandarin, as well as other varieties of Chinese, is another topic ripe for further research. Though this study treats Taiwan Mandarin in particular, some of the findings are certain to apply to linguistic contraction and elision in general. Better understanding of contracted forms has valuable implications for the study of information flow, focus, discourse analysis, sociolinguistics, linguistic change, and Chinese language teaching and learning.

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台灣漢語的語音縮讀與背景化

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台灣漢語中有一個相當普遍,卻鮮少人察覺的現象,就是語音縮讀,譬如,「馬上」常說成 [mal aŋl] 或是 [mal faŋl]。縮讀的主要功能在於將較不重要的資訊,如虛詞、副詞片語或重疊詞重複的部分「背景化」,使聽話者比較容易判斷出句中重要的成分在哪裡。因爲漢語中「主題 - 評述」的結構特徵,縮讀詞語甚少在句尾出現,除非是已定形的縮讀,而且最後一個音節沒有語音省略,或是句尾臨時附加的插入語,如「我覺得」。縮讀詞語的使用與否與許多因素相關,包括語言的場合層級、對話者的年齡與社會階級、個人說話習慣,及說話者對於話題的情緒投入。台灣漢語到底是音節計時的語言還是重音計時的語言,抑或兩者都不是,尚未有定論。不過,在觀察有關縮讀語料之後至少可以說,縮讀現象極少的播音式漢語應比較傾向音節計時;縮讀形經常出現的日常交談則較偏向重音計時;台灣漢語因此可能屬於混合性的語音計時類型。

關鍵詞:縮讀、台灣漢語、背景化、語音省略、「主題 - 評述」、 句尾、言談分析、音位排列規則