BRIEF RESEARCH REPORT

Acquiring causatives in Taiwan Southern Min*

HUEI-LING LIN AND JANE S. TSAY

National Chung Cheng University

ABSTRACT

This case study is based on the longitudinal data of a girl (LYC, 1;2–3;3) acquiring Taiwan Southern Min (TSM) as her first language, and it aims to discover the overgeneralization pattern of children acquiring causatives in TSM. Among the three types of causative, the errors found in other languages are mostly with lexical causatives; however, in TSM, the errors occur with morphological and analytic causatives. Being an analytic language, TSM tends to spell out the causative meaning through morphological and analytic causatives and thus most errors occur with these two types. In contrast, lexical causatives, which contain a semantic element CAUSE, were acquired late; in the data collected (1;2–3;3) lexical causatives were not yet found. This case study provides evidence from TSM to show a different overgeneralization pattern.

INTRODUCTION

This is a case study of the acquisition of causatives based on the longitudinal data of a girl (LYC, 1;2–3;3) acquiring Taiwan Southern Min (TSM) as her first language. Causation is a necessary and fundamental concept to act and live by for human beings. Every human language has some constructions to express causation. According to Comrie (1981), the meaning of causative constructions consists of the cause component and its effect (result) component, and the forms can be classified into three types: analytic, morphological and lexical, as illustrated in (1).

(1a) analytic
      I caused him to go.   [English]
(1b) morphological
      öl-dür   [Turkish]
      die-CAUS
      'kill/cause-to-die'
(1c) lexical
      kill   [English]

(1a) is a case of analytic causative in English, where two separate verbs *cause* and *go* indicate cause and effect, respectively. The Turkish word *öl-dür* 'kill/cause-to-die' in (1b) is a morphological causative, which is derived after the causative suffix *-dür* is attached to *öl* 'to die'. In (1c) *kill* in English encodes both the meaning of cause and effect in one form while holding no regular formal relationship with the word denoting the effect 'to die'.

The examples in (1) represent the ideals of each type of causative. However, not all causatives can be easily classified as one of these three types. Some may come close to one of them on the continuum – lexical … morphological … analytic (Comrie, 1981; Shibatani & Pardeshi, 2001). For instance, in English, many causatives are formed without any morphological change to the verb. *Melt* in English is both a causative transitive as in (2a) and an intransitive as in (2b).

(2a) The sun melted the ice.
(2b) The ice melted.

Causatives differ from intransitives in that the former assign an extra theta-role, Cause, which is lacking with intransitives. The causative verb *melt* in (2a) assigns the theta-role Cause to the NP *the sun*. Since the intransitive *melt* in (2b) does not assign the theta-role Cause, an NP bearing this particular theta-role is thus not available in (2b). With/Without assigning the theta-role Cause is the feature distinguishing causative transitives from intransitives, and therefore it is often stated that a causative verb has an intransitive as its non-causative counterpart.

In the study of children acquiring causatives, there have long been discussions on two related issues. One of the issues is about the nature of the children's errors involving the overgeneralized use of intransitive verbs as causative verbs. For instance, a child may produce *come it closer* to mean 'make it come closer'. Bowerman (1974) proposes lexical misclassification to explain such errors of overgeneralization in causatives. That is, a child may misclassify an intransitive verb such as *come* as allowing the addition of a semantic element CAUSE and use it as a transitive verb. Braine (1988), Pinker (1989) and Pye (1994), however, propose that the overgeneralization errors are due to difficulties in lexical retrieval. That is, when children have

difficulty with retrieving the correct word, they replace it with another word with similar meaning. The difference between these two approaches lies in the direction of overgeneralization. Under Bowerman's hypothesis, only intransitive-to-causative overgeneralization will take place, while Braine, Pinker and Pye predict that both intransitive-to-causative and causative-to-intransitive overgeneralizations may occur.

The other issue of equal importance is whether overgeneralization of causatives shows an 'intransitive-to-causative bias', a term used by Cheung (1998) to indicate the mistake of using intransitive verbs to express causative meanings. This type of mistake is shown to exist in the speech of children learning languages such as Cantonese (Cheung, 1998), Hebrew (Berman, 1993) and Portuguese (Figueira, 1984), as illustrated in (3)[1] (CHI in (3) stands for 'child' and INV for 'investigator'; PRT stands for 'particle').

(3) Cantonese (Cheung, 1998: 155 (7a))
    CHI: *ceot1   lei4   a3.
            come   out   PRT
            'Come out.'
    INV: <u>ling1</u>   ceot1   lei4   a4?
            take   come   out   PRT
            'Take it out?'

This type of bias, however, is not found in the speech of children speaking Hungarian (Clark, 1993) and K'iche' (Pye, 1994). In the studies of Lord (1979) and Braine, Brody, Fisch, Weisberger & Blum (1990) of children acquiring English, the overgeneralizations in both directions, intransitive-to-causative and causative-to-intransitive, did occur.

The case study reported here aims to investigate whether causative acquisition in TSM also demonstrates an intransitive-to-causative bias. Results of this study show that LYC made errors of overgeneralization in acquiring causatives. However, unlike the errors discussed in the literature, which mainly occur with lexical causatives, the errors made by LYC are with morphological and analytic causatives. Moreover, LYC's errors demonstrated a different overgeneralization pattern, that is, resultative-to-causative. We claim that the difference in the overgeneralization patterns results from the properties of TSM. TSM abounds with resultative compounds. Furthermore, being an analytic language, TSM tends to spell out the causative meaning by means of morphological and analytic causatives and thus most errors are found in using these two types of causative. In contrast, lexical causatives, which contain a semantic element CAUSE, are

---

[1] Cheung (1998) did not provide glosses for the example. Glosses are added here by the authors for ease of explanation.

acquired late and used less commonly; in the data collected (1;2–3;3) lexical causatives are not yet used by the child.

Causative constructions in Taiwan Southern Min

Taiwan Southern Min is the variety of Southern Min spoken in Taiwan. Different varieties of Southern Min are spoken in Fujian and Kuangdong provinces in China. TSM is spoken by more than 80% of the people in Taiwan (Cheng, 1985). The causatives in TSM can be classified into the three types defined by Comrie (1981).

Analytic causatives. Sentences involving the use of causative verbs such as *hoo* 'cause$_1$', *kio* 'cause$_2$', *su* 'cause$_3$', etc. are analytic, as shown in (4), where the verb *hoo* 'cause' denotes cause while the verb *sng* 'play' indicates the effect. Even though these three verbs *hoo*, *kio* and *su* are all causative, they do slightly differ in their meaning. The exact meaning for *kio* is 'order someone to do something', and *su* is used in a rather formal and literary context. Among these three, *hoo* is used most often and it does not carry any extra meaning other than causativity.

(4) analytic
    hoo   gua   sng.[2]
    cause   I   play
    'Let me play.'[3]

Example (4) has a covert NP as the subject; that is, the causer is a person. Another type of analytic causative which has an event as the causer is available in TSM, as shown in (5). In (5) *hoo* is preceded and also followed by a clause, so Cheng (1974) takes this *hoo* to be a conjunctive connecting the cause and consequence clauses. Cheng, Huang, Li & Tang (1999), however, consider (5) a type of serial verb construction. No matter how example (5) is termed, the causative verb *hoo* is used, and (5) differs from (4) only in the status of the causer, event vs. person. Therefore, example (5) is also considered an analytic causative in this paper (CL stands for 'classifier').

(5) analytic
    gua   chiunn   cit siu kua   hoo   li   thiann.
    I   sing   one CL song   cause   you   listen
    'I'll sing a song for you to listen to.'

Morphological causatives. Compounds with the form V-*hoo*-V, such as *ciah-hoo-liau* 'eat-CAUS-up' in (6), are considered morphological causatives

---

[2] Romanization used in this paper is according to the TLPA (Taiwan Language Phonetic Alphabet), which was promulgated by the Ministry of Education in Taiwan in 1998.

[3] The causative verb *hoo* is often used in an imperative speech act and denotes the meaning of permission. As such, it is translated into 'let'.

for the following reason. As Comrie (1981) argues, morphological causatives must demonstrate two characteristics. One is that 'the causative is related to its non-causative predicate by morphological means'. The other is that 'this means of relating causative and non-causative predicates is productive' (1981: 167). V-*hoo*-V forms in TSM are argued to be related to resultative V-V compounds in derivation (Lin, 2001, 2006). For instance, *ciah-hoo-liau* 'eat-CAUS-up' is derived from *ciah-liau* 'eat-up' by inserting the infix -*hoo*-. Moreover, this type of derivation is highly productive as most, if not all, resultative compounds have causative counterparts.

(6) morphological
     li   png   ai   ciah-hoo-liau.
     you   meal   must   eat-CAUS-up
     'You must eat up your meal.'

Resultative compounds such as *ciah-liau* 'eat-up' are in nature causative since the first verbal element often denotes an event while the second element denotes the result caused by the event. However, they are to be distinguished from morphological causative compounds on the basis of form, meaning and usage. In terms of form, morphological causatives involve the use of a morphological causative marker, -*hoo*-, which is lacking in resultative compounds. Even though a resultative compound seems to be composed of an action and a result aspect, its meaning focuses on the result aspect only. For instance, *pai-ho* 'arrange-neat' means 'things are neat after they are arranged'. As to morphological causatives, with the help of the causative marker -*hoo*-, the causal action meaning becomes salient. The meaning of the morphological causative *pai-hoo-ho* 'arrange-CAUS-neat' is 'arrange to make things neat', which does not have a simple equivalent in English. With the causal action meaning, a morphological causative thus can co-occur with the durative aspect marker *leh*. As shown in (7), the resultative compound *pai-ho* is not compatible with *leh*, while the co-occurrence of *leh* with the morphological causative *pai-hoo-ho* is perfectly acceptable (DUR stands for 'durative').

(7a) *i   leh   ciong mihkiann   pai-ho.
      he   DUR   CIONG thing   arrange-neat
      'He is arranging things neat.'
(7b) i   leh   ciong mihkiann   pai-hoo-ho.
      he   DUR   CIONG thing   arrange-CAUS-neat
      'He is arranging things neat.'

Moreover, as discussed in Allen (1998) and Shirai, Miyata, Naka & Sakazaki (2000), imperatives are often related to causatives. As such, causative forms are often used to express the imperative meaning. To illustrate, *ciah-hoo-liau* 'eat-CAUS-up' in (8) expresses an imperative

meaning, while its resultative counterpart *ciah-liau* 'eat-up' in (9) lacks such an imperative meaning and thus is not compatible with the second person subject *li* 'you'. Example (9) is improved after the subject is changed to other persons such as *gua* 'I' or *i* 'he', as in (10).

(8) (li)   png   ciah-hoo-liau.
     (you)   meal   eat-CAUS-up
     'Eat up your meal.'

(9) ?li   png   ciah-liau.
     you   meal   eat-up
     'You finished eating your meal.'

(10) gua/i   png   ciah-liau   a.
     I/he   meal   eat-up   PRT
     'I/he finished eating the meal.'

Lexical causatives. Like *melt* in English, causative verbs/compounds such as *kiann* 'scare' and *kiann-si* 'scare (sb) to death' in (11a) in TSM come closer to the category of lexical causatives, since they have intransitives as their non-causative counterparts, as shown in (11b).

(11a) lexical causative transitive verb/compound
       li   mai kiann/kiann-si   lang   a.
       you   not scare/scare-dead   people   PRT
       'Don't scare people/scare people to death.'

(11b) intransitive verb/compound
       i   e   kiann/kiann-si.
       he   will   feel-scared/scare-dead
       'He will feel scared/feel scared to death.'

As argued in Cheng, Huang, Li & Tang (1997), causative compounds differ from their non-causative counterparts in that the former contain a semantic element CAUSE in the semantic structure. As shown in (11) the causative *kiann-si* 'scare (sb) to death' does have a non-causative counterpart *kiann-si* 'feel scared to death', and the semantic structure of the causative *kiann-si* is actually CAUSE+intransitive *kiann-si*. Even though lexical causatives such as *kiann-si* also bear the form of a resultative compound, they are specifically termed as lexical causatives as they meet the criterion that causatives have intransitives as their non-causative counterparts. Resultative compounds, however, do not have causative/non-causative alternation. For example, *phah-si* 'hit-dead' in (12a) is a resultative compound. At first glance, it seems to have an intransitive form as its non-causative counterpart in (12b) since the noun phrase *Ong-e* occurs as the object of the transitive verb in (12a) but as the subject in (12b). However, *phah-si* 'hit-dead' in (12b) is not really intransitive. *Ong-e* in (12b) is the agent who performs the action of

hitting and the object of the compound is omitted.[4] Sentences with null objects are common in Sinitic languages such as Mandarin Chinese, as discussed in Huang (1991), and TSM is also a Sinitic language.

(12a) i   phah-si   Ong-e   a.
       he   hit-dead   Ong-e   PRT
       'He hit Ong-e to death.'
(12b) Ong-e   phah-si   a.
       Ong-e   hit-dead   PRT
       'Ong-e hit someone/something to death.'

In Lien's (1999) typological study of causatives in TSM, lexical causatives are further classified into two subtypes: labile causatives and suppletive causatives. Labile causatives are simplex verbs used as causatives with zero derivation, such as *melt* in English and *kiann* 'scare' in TSM, as illustrated in (11). Suppletive causatives refer to causatives such as *kill* in English, which denote both cause and result while holding no morphological relationship with the word denoting the result. Examples of suppletive causatives in TSM given by Lien are verbs such as *thau* 'untie' and *si* 'die'. However, in the TSM spoken by the authors, who are native speakers of TSM, these so-called suppletive causatives either do not denote result or do not denote cause. That is, they have either the cause or the result meaning only. For instance, *thau* 'untie' alone as in (13) does not denote result and that is why the result can still be negated by the following clause *thau-bo-khui* 'do not succeed in untying it'. To express that the result is achieved, one has to add a stative verb such as *khui* 'open' to denote the result of untying as in *thau-khui* 'untie-open'. With the addition of the stative verb *khui*, *thau-khui* does denote that a result is achieved and thus the negation of the result renders the sentence unacceptable, as illustrated in (14).

(13) i   thau te-a thau   nng pai a,   mko   long thau-bo-khui.
      he   untie bag untie   two time PRT but   all untie-not-open
      'He tried to untie the bag twice but did not succeed.'
(14) *i   te-a thau-khui nng pai a,   mko   long thau-bo-khui.
      he   bag untie-open two time PRT   but   all untie-not-open
      'He untied the bag twice but did not succeed.'

As a result, in this paper the lexical causatives in TSM only refer to the *melt*-type causatives, that is, verbs such as *kiann* 'scare' in (11).

---

[4] It is possible that (12b) is interpreted as 'someone hit Ong-e to death'. That is, *Ong-e* is taken to be the theme of the resultative compound *phah-si*. However, special contexts need to be provided for that interpretation. Moreover, with that interpretation *Ong-e* is topicalized to be the focus of the sentence. At any rate, the interpretation with *Ong-e* being the agent is the most salient reading for (12b).

Functions of hoo

As can be seen from the previous discussion, *hoo* occurs in both analytic and morphological causatives. Other than these two occurrences, *hoo* has other functions as well. According to Cheng (1974), *hoo* in TSM has five functions, as listed below:

(a) *hoo* is a conjunctive connecting cause and consequence clauses;
(b) *hoo* is a cause verb in causative constructions;
(c) *hoo* is a verb meaning 'give';
(d) *hoo* is the dative case marker;
(e) *hoo* is the agent case marker in the passive construction.

Cheng (1974) does not use terms like analytic causatives and morphological causatives in his classification. Among these five types, types (a) and (b) are taken to be analytic causatives in this paper, since they both involve the use of the causative verb *hoo*; they differ only in whether the causer is an event or person/object. Morphological causatives as defined in this paper are not singled out by Cheng to be a different type. Rather, they are classified as type (a) by Cheng. The logic behind Cheng's classification is that for those examples where *hoo* is (immediately) followed and (immediately) preceded by a verb, *hoo* is used as a conjunctive connecting the two verbs (clauses). However, when nothing intervenes between *hoo* and the verbs before and after it, V-*hoo*-V forms are defined as morphological causatives in this paper since they are closely related to V-V resultative compounds in derivation, as argued by Lin (2001, 2006).

DATA AND RESULTS

Data description

The data for this case study were from the Taiwan Child Language Corpus developed by Tsay (2005, in preparation). The data are mainly a child's (LYC) natural conversations with the caregiver and/or the investigator. The child was from a TSM-speaking family. The conversations were recorded every two weeks through home visits and the investigation lasted for 26 months (1;2–3;3). Each recording was forty to sixty minutes long,[5] and the total length of the recordings is 2295 minutes.

In this longitudinal study the three types of causative in both the correct and wrong usages were collected and then analyzed by the authors, who are native speakers of TSM. Productivity is defined as a word/phrase being used more than twice in a particular month, e.g. 2;1, and continuously used

---

[5] Only two of the recordings are longer than sixty minutes; one is eighty and the other is ninety.

in the following month, e.g. 2;2. Examples of the child imitating the adult's speech are not counted in this study.

Results

The results reveal that both analytic and morphological causatives occurred at an early stage in LYC's speech. In the data collected, analytic causatives first occurred at 1;6, as shown in (15), where the concept 'cause' is denoted by the causative verb *hoo* while the effect is expressed by the verb *lim* 'drink.' In (15) the child code-switched between TSM and Mandarin Chinese; [:=m] is used to indicate that this particular word was pronounced in Mandarin Chinese, not in TSM, by the child.

(15) bo   ai   hoo   da[:=m]   niao[:=m]   jiejie[:=m]   lim.   (1;6)
      not   want cause big   bird   sister   drink
      '(I) don't want to let Sister Big Bird drink (it).'

Morphological causatives first occurred at 1;10, as shown in (16), where *pai-hoo-suisui* is a morphological causative as the infix *-hoo-* is inserted into the compound *pai-suisui* to form the causative.

(16) gua   beh   pai-hoo-suisui.   (1;10)
      I   want   arrange-CAUS-pretty
      'I want to arrange them pretty.'

After their first occurrence, analytic causatives continued to occur in LYC's speech, as listed in Table 1.[6] However, they were not productively used until 1;10. In this month, LYC used the causative verb *hoo* three times, and in the following month (1;11) the causative *hoo* even occurred seven times in LYC's speech.

As to morphological causatives, they were not productively used by LYC until 2;10, when three morphological causatives were used as listed in Table 2. The production of the overgeneralized form **tau-hoo-kin* 'assemble-CAUS-fast' at 3;0 further proves that by this age LYC has productively used the rule of inserting the infix *-hoo-* to form morphological causatives and as a result produced the overgeneralized form.

As discussed earlier, in addition to being a causative verb and a morphological causative marker, *hoo* has other functions. Among the various functions, *hoo* was first used as a verb meaning 'to give' by LYC at 1;2, as shown in Table 3. Then its usage was extended to being a causative verb at 1;6, and *hoo* was productively used as a causative verb from 1;10. Even though the dative and passive use first occurred as early as 1;5 and 1;6, *hoo* was not productively used as a dative and passive marker until 1;11 and

---

[6] Tables with complete information are provided in the Appendices.

TABLE 1. *Occurrences of analytic causatives between 1;6 and 2;9*

	hoo	kio
1;6	1	0
1;7	0	0
1;8	2	0
1;9	0	0
1;10	3	0
1;11	7	0
2;0	5	0
2;1	11	0
2;2	5	0
2;3	8	0
2;4	16	0
2;5	5	0
2;6	6	0
2;7	9	0
2;8	9	0
2;9	7	1

2;0. As to the morphological causative *hoo*, it was not productively used until 2;10.

As mentioned above, Cheng (1974) classifies analytic causatives into two types: conjunctive (with an event as the causer) and cause verb (with a person/object as the causer). According to the data collected, LYC did not productively use the conjunctive *hoo* until 2;9, as shown in Table 3, while by 1;10 the cause verb *hoo* was already productively used. At 1;10 when bi-clausal (multi-clausal) structures involving the use of the analytic causative verb *hoo* were productively used by LYC, bi-clausal structures involving other verbs such as *ai* 'like', as exemplified in (17), were not yet found in the data collected. As indicated in Table 4, bi-clausal structures involving verbs other than *hoo* were not productively used by LYC until 2;9.

(17) gua   ai   ciah.   (2;9)
      I   like eat
      'I like to eat.'

The collected data also indicate that lexical causatives were not yet acquired by LYC up to 3;3. In the data (1;2–3;3), lexical causatives only occurred in the intransitive form but not yet in the causative form, as shown in (18), where *kiann* 'feel scared' was used as an intransitive taking no object.

(18) gua e   kiann   la.   (2;0)   (cf. (11))
      I   will feel-scared PRT
      'I will feel scared.'

TABLE 2. *Occurrences of morphological causatives between* 1;10 *and* 3;0

	pai-X-suisui	pai-X-ho	phang-X-ta	iong-X-hai	ciah-X-liao	iong-X-liao	iong-X-luan	lim-X-liao	ue-X-anni	iong-X-suann	*tau-X-kin	pai-X-lue	kuan-X-ho	Total
1;10	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1;11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2;1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2;2	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2;3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;4	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2;5	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2;6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;10	0	0	0	0	1	1	1	0	0	0	0	0	0	3
2;11	0	0	0	0	0	0	0	2	1	0	0	0	0	3
3;0	0	0	0	0	0	0	0	0	0	1	1	1	3	6
Total	1	3	1	1	1	1	1	2	1	1	1	1	3	18

X represents *hoo*.
* indicates that this is not a possible morphological causative in TSM.

TABLE 3. *Occurrences of various hoo between 1;2 and 2;11*

	(a) conjunctive *hoo*	(b) cause verb *hoo*	(c) 'give' *hoo*	(d) dative *hoo*	(e) passive *hoo*	(f) morpho-logical causative *hoo*	Total
1;2	0	0	6	0	0	0	6
1;3	0	0	0	0	0	0	0
1;4	0	0	2	0	0	0	2
1;5	0	0	2	1	0	0	3
1;6	0	1	0	0	1	0	2
1;7	0	0	0	0	0	0	0
1;8	0	2	7	0	0	0	9
1;9	0	0	7	0	0	0	7
1;10	0	3	8	0	0	1	12
1;11	1	6	6	3	0	0	16
2;0	0	5	6	1	4	1	17
2;1	2	9	13	0	2	1	27
2;2	0	5	7	1	1	1	15
2;3	0	8	6	0	1	0	15
2;4	2	14	9	3	2	1	31
2;5	0	5	7	9	0	1	22
2;6	1	5	8	7	0	0	21
2;7	0	9	12	1	0	0	22
2;8	1	8	3	1	0	0	13
2;9	3	4	6	0	0	0	13
2;10	5	11	2	0	0	3	21
2;11	4	7	1	3	1	3	19
Total	19	102	118	30	12	12	293

According to Cheng's (1974) classification, (a) *hoo*: a conjunctive connecting two clauses; (b) *hoo*: a cause verb; (c) *hoo*: 'to give'; (d) *hoo*: the dative case marker; (e) *hoo*: 'by'. Different from Cheng's classification, (f) *hoo* refers to the *hoo* in V-*hoo*-V morphological causatives.

A seemingly causative use did occur once in the data, as shown in (19), where + ... indicates that this is not a complete sentence. However, whether the child's use of *kiann-si* is indeed causative is doubtful as the child's utterance is not complete; that is, *kiann-si* is not followed by an object and thus it is not clearly a causative verb. Moreover, this example of *kiann-si* occurred right after the investigator's use of this verb, and thus the child might be just imitating the adult's speech. Also, *kiann-si lang* 'scare self/people to death' is an idiomatic expression in TSM. The fact that the child could not imitate the expression completely can be attributed to the child's lack of knowledge of lexical causatives at this stage.

(19) INV: kiann-si   lang.
            scare-dead   people
            'Scare self/people to death.'
      CHI: kiann-si + ...   (2;0)
            scare-dead

TABLE 4. *Occurrences of bi-clausal structures between* 1;6 *and* 2;10

	hoo	Other verbs
1;6	1	0
1;7	0	0
1;8	2	0
1;9	0	0
1;10	3	0
1;11	7	0
2;0	5	1
2;1	11	1
2;2	5	0
2;3	8	2
2;4	16	1
2;5	5	0
2;6	6	1
2;7	9	2
2;8	9	0
2;9	7	13
2;10	16	7

DISCUSSION

This section will present and explain the errors made by LYC to show the overgeneralization pattern in the speech of a child acquiring the causatives in TSM.

Lexical causatives

As shown above, LYC was not yet using lexical causatives in the period of 1;2–3;3; therefore, no mistakes in using lexical causatives could be observed. The late occurrence of lexical causatives in TSM could be due to the productivity of the other two types of causative: morphological and analytic causatives. Typologically, TSM is an analytic language, whose words have invariant forms and each form denotes a piece of semantic information. TSM thus tends to spell out every piece of semantic information in overt forms. Both morphological and analytic causatives have the causativity spelt out by overt markers of causativity, the causative morpheme *-hoo-* or causative verbs such as *hoo* 'cause$_1$' and *kio* 'cause$_2$'. Therefore, these two types, especially analytic causatives, are more commonly adopted to express causativity, as shown in Tables 1 and 2. In contrast, lexical causatives, which contain an abstract semantic element CAUSE, are acquired late and used less commonly.

Morphological causatives

When using V-*hoo*-V morphological causatives, LYC did demonstrate errors of overgeneralization. For instance, the child sometimes omitted the

TABLE 5. *Occurrences of resultative compounds between 1;2 and 3;3*

1;2	0
1;3	3
1;4	14
1;5	16
1;6	21
1;7	6
1;8	23
1;9	24
1;10	38
1;11	33
2;0	36
2;1	43
2;2	41
2;3	39
2;4	75
2;5	29
2;6	40
2;7	30
2;8	15
2;9	16
2;10	57
2;11	28
3;0	58
3;1	19
3;2	25
3;3	16

causative marker *-hoo-*, resulting in V-V sequences, which are resultative compounds in TSM. That is, the child sometimes misused resultative compounds as morphological causatives. For instance, *luah-tit* 'comb-straight' was wrongly used to replace *luah-hoo-tit* 'comb-CAUS-straight', as in (20).

(20) INV: koh   thaumng koh   khiukhiu ne.
           still hair   still curly   PRT
           'The hair is still curly.'
      CHI: Target: luah-hoo-tit.
           Error: *luah-tit   e.   (2;2)
                   comb-straight   PRT
                   'Comb it straight.'

In (20), the child meant to express the imperative meaning; however, the resultative compound *luah-tit* 'comb-straight' cannot serve as an imperative. It thus proves that in TSM resultative compounds are not causatives and only morphological causatives such as *luah-hoo-tit* can serve the imperative function.

Table 5 shows that LYC started to productively use V-V resultative compounds at a very early stage, 1;3. By 1;10 LYC also used the analytic

causative verb *hoo* productively, as indicated in Table 1, and at around the same time (1;10) the first instance of a V-*hoo*-V morphological causative occurred in the data collected. While both resultative compounds and analytic causatives were productively used at an early stage, the morphological causatives, which are derived from resultative compounds with the insertion of the infix -*hoo*-, were used much less commonly. The child was confused about the usage of the two related forms, V-V resultative compounds and V-*hoo*-V morphological causatives; therefore, resultatives were mistakenly used to replace morphological causatives to express the causative meaning, as in (20).

As the formation of causatives in TSM greatly differs from that in other languages, it is not surprising if the pattern of overgeneralization found in TSM is not present in other languages. Different from the intransitive-to-causative pattern observed in some other languages, the overgeneralization pattern in TSM is that resultative compounds are used to replace causative compounds. However, the overgeneralization pattern demonstrated in TSM can still be considered to be parallel to that discussed in the earlier literature. That is, the bias can be seen to be resultative-to-causative, or in more general terms, non-causative-to-causative.

Analytic causatives

As to analytic causatives, in some cases LYC replaced the causative verb *hoo* with the preposition *ka*, which denotes 'disposal', as in (21).

(21) Target: li   iong   hoo   gua   khuann.
      Error: *li   iong   ka   gua   khuann.   (2;0)
                  you use   KA   I   see
            'You let me see (it).'

These errors show that the child did not master the use of the causative verb yet. She mixed up the use of the causative verb *hoo* with another semantically related disposal marker *ka*, which occurs in the same syntactic position as *hoo*; they both are followed by an object. Sometimes, when the child was not sure which one to use, she simply used both *ka* and *hoo* when only the use of *ka* is needed. According to the data collected, the period of confusion lasted from 2;0 to 2;10. In other wrong uses, the child simply omitted the causative verb *hoo*, as in (22).

(22) Target: gua   beh   phang hoo ai   ciah.
      Error: *gua   beh   phang   ai   ciah.   (2;1)
                  I   want   carry   aunt eat
            'I want to bring (it) for aunt to eat.'

In the case of LYC's errors in using analytic causatives, what is involved is not overgeneralization. Rather the child is confused about two semantically

related words which occur in identical syntactic positions. Even though LYC started to use *ka* as early as 1;5, her usage of *ka* followed by an object occurred at 1;9. After the occurrence of *ka* followed by an object, the child started to get confused about the usage of *hoo* and *ka* for a period of time (from 2;0 to 2;10).

CONCLUSION

This case study of a child acquiring the causatives in TSM has demonstrated an overgeneralization pattern different from those observed in the literature. The difference, however, is expected since this language has different morphology. Sinitic languages are often considered to be impoverished in morphology; nevertheless, in the aspect of compound formation, the morphology is very rich. As such, the overgeneralization is found to occur the most with compounds. As to the analytic causatives, this type of error is peculiar to the language itself, again due to the language-specific features. That is, TSM has a disposal marker *ka*, which occurs in similar positions as the causative verb *hoo*. As a result, children mistakenly use one for the other.

Being Sinitic languages, both Cantonese and TSM are analytic in nature. Therefore, it is expected that the children acquiring these two languages would demonstrate the same type of error. However, as presented above, the overgeneralization patterns in the acquisition of these two languages are different. The difference, nevertheless, does not come as a surprise because the analyticity of the two languages differs in degree. TSM is more analytic than Cantonese as both the causative infix *-hoo-* and the negative marker *bo* can be inserted into a resultative compound to show causativity and negation in TSM, but not in Cantonese. Cheung (1998) notes that the children did not use resultative compounds incorrectly in her study,[7] and that could be because they did not have the opportunity to do that. It can also be speculated that Cantonese does not have morphological causatives and thus Cantonese-speaking children do not wrongly use resultative compounds to express causativity.

This is a case study of causative acquisition in TSM. Even though the data come from one child only, the overgeneralization pattern found in this study reveals what the overall pattern might be like, and it is hoped that more case studies can further confirm our findings in the acquisition patterns of TSM.

---

[7] Compounds such as *wan-laan* 'play-broken' in Cantonese are referred to as compound causatives by Cheung (1998). However, they are renamed as resultative compounds in this paper to further distinguish this type of compound from morphological causatives.

REFERENCES

Allen, S. E. M. (1998). Categories within the verb category: learning the causative in Inuktitut. *Linguistics* **36**, 633–77.

Berman, R. A. (1993). Marking of verb transitivity by Hebrew-speaking children. *Journal of Child Language* **20**, 641–69.

Bowerman, M. (1974). Learning the structure of causative verbs: a study in the relationship of cognitive, semantic and syntactic development. *Papers and Reports on Child Language Development* **8**, 142–78.

Braine, M. D. S. (1988). Modeling the acquisition of linguistic structure. In Y. Levy, I. M. Schlesinger & M. D. S. Braine (eds), *Categories and processes in language acquisition*, 217–59. Hillsdale, NJ: Erlbaum.

Braine, M. D. S., Brody, R. E., Fisch, S. M., Weisberger, M. J. & Blum, M. (1990). Can children use a verb without exposure to its argument structure? *Journal of Child Language* **17**, 313–42.

Cheng, R. L. (1974). Causative constructions in Taiwanese. *Journal of Chinese Linguistics* **2**, 279–324.

Cheng, R. L. (1985). A comparison of Taiwanese, Taiwan Mandarin, and Peking Mandarin. *Language* **61**, 352–77.

Cheng, L. L.-S., Huang, C.-T. J., Li, Y.-H. A. & Tang, C.-C. J. (1997). Causative compounds across Chinese dialects: a study of Cantonese, Mandarin and Taiwanese. In C.-Y. Tseng (ed.), *Chinese languages and linguistics IV: typological studies of languages in China*, 199–224. Taipei: Academia Sinica.

Cheng, L. L.-S., Huang, C.-T. J., Li, Y.-H. A. & Tang, C.-C. J. (1999). Hoo hoo hoo: syntax of the causative, dative, and passive constructions in Taiwanese. In P.-H. Ting (ed.), *Contemporary studies on the Min dialects*, 146–203. Journal of Chinese Linguistics Monograph Series #14.

Cheung, S. L. (1998). Causatives verbs in child Cantonese. In E. V. Clark (ed.), *The proceedings of the twenty-ninth annual child language research forum*, 151–60. Stanford, CA: Center for the Study of Language and Information.

Clark, E. V. (1993). *The lexicon in acquisition*. New York, NY: Cambridge University Press.

Comrie, B. (1981). *Language universals and linguistic typology*. Chicago, IL: University of Chicago Press.

Figueira, R. A. (1984). On the development of the expression of causativity: a syntactic hypothesis. *Journal of Child Language* **11**, 109–27.

Huang, C.-T. J. (1991). Remarks on the status of the null objects. In R. Freidin (ed.), *Principles and parameters in comparative grammar*, 56–76. Cambridge, MA: MIT Press.

Lien, C. (1999). A typological study of causatives in Taiwanese Southern Min. *Tsing Hua Journal of Chinese Studies* **29**, 395–422.

Lin, H.-L. (2001). Verbal complexes and objects in Taiwanese. In H.-C. Liou & R.-F. Chung (eds), *Language research and English teaching: challenges and solutions*, 55–74. Taipei: The Crane Publishing Company.

Lin, H.-L. (2006). Morphological causatives versus resultative compounds in Taiwan Southern Min. In R.-F. Chung, H.-C. Liou, J.-L. Hsu & D.-A. Ho (eds), *On and off work: festschrift in honor of Professor Chin-Chuan Cheng on his 70th birthday*, 113–26. Taipei: Institute of Linguistics, Academic Sinica.

Lord, C. (1979). ''Don't you fall me down'': children's generalizations regarding cause and transitivity. *Papers and Reports on Child Language Development* **17**, 81–9.

Pinker, S. (1989). *Learnability and cognition: the acquisition of argument structure*. Cambridge, MA: MIT Press.

Pye, C. (1994). A cross-linguistic approach to the causative alternation. In Y. Levy (ed.), *Other children, other languages: issues in the theory of language acquisition*, 243–63. Hillsdale, NJ: Erlbaum.

Shibatani, M. & Pardeshi, P. (2001). The causative continuum. In M. Shibatani (ed.), *The grammar of causation and interpersonal manipulation*, 85–126. Amsterdam: John Benjamins Publishing Company.

Shirai, Y., Miyata, S., Naka, N. & Sakazaki, Y. (2000). The acquisition of causative mor-
phology : why does it correlate with the imperative ? In E. V. Clark (ed.), *The proceedings of
the thirtieth annual child language research forum*, 87–94. Stanford, CA : Center for the
Study of Language and Information.

Tsay, J. S. (2005). Taiwan Child Language Corpus : data collection and annotation.
Proceedings of 5th workshop on Asia language resources, 56–61. Jeju Island, Republic of
Korea.

Tsay, J. S. (in preparation). Taiwan Child Language Corpus. National Chung Cheng
University, Taiwan.

APPENDIX A

OCCURRENCES OF ANALYTIC CAUSATIVES BETWEEN 1;2 AND 3;3

	hoo	kio
1;2	0	0
1;3	0	0
1;4	0	0
1;5	0	0
1;6	1	0
1;7	0	0
1;8	2	0
1;9	0	0
1;10	3	0
1;11	7	0
2;0	5	0
2;1	11	0
2;2	5	0
2;3	8	0
2;4	16	0
2;5	5	0
2;6	6	0
2;7	9	0
2;8	9	0
2;9	7	1
2;10	16	0
2;11	11	1
3;0	5	0
3;1	6	0
3;2	4	0
3;3	4	0

APPENDIX B

OCCURRENCES OF MORPHOLOGICAL CAUSATIVES BETWEEN 1;2 AND 3;3

	pai-X-suisui	pai-X-ho	phang-X-ta	iong-X-hai	ciah-X-liao	iong-X-liao	iong-X-luan	lim-X-liao	ue-X-anni	iong-X-suann	*tau-X-kin	pai-X-lue	kuan-X-ho	Total
1;2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1;3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1;4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1;5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1;6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1;7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1;8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1;9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1;10	1	0	0	0	0	0	0	0	0	0	0	0	0	1
1;11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2;1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2;2	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2;3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;4	0	0	0	1	0	0	0	0	0	0	0	0	0	1
2;5	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2;6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2;10	0	0	0	0	1	1	1	0	0	0	0	0	0	3
2;11	0	0	0	0	0	0	0	2	1	0	0	0	0	3
3;0	0	0	0	0	0	0	0	0	0	1	1	1	3	6
3;1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3;2	0	0	0	0	0	1	0	0	0	0	0	0	0	1
3;3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	3	1	1	1	2	1	2	1	1	1	1	3	19

X represents *hoo*; * indicates that this is not a possible morphological causative in TSM.

ACQUIRING CAUSATIVES IN TAIWAN SOUTHERN MIN

APPENDIX C

OCCURRENCES OF VARIOUS *hoo* BETWEEN 1;2 AND 3;3

	(a) conjunctive *hoo*	(b) cause verb *hoo*	(c) 'give' *hoo*	(d) dative *hoo*	(e) passive *hoo*	(f) morphological causative *hoo*	Total
1;2	0	0	6	0	0	0	6
1;3	0	0	0	0	0	0	0
1;4	0	0	2	0	0	0	2
1;5	0	0	2	1	0	0	3
1;6	0	1	0	0	1	0	2
1;7	0	0	0	0	0	0	0
1;8	0	2	7	0	0	0	9
1;9	0	0	7	0	0	0	7
1;10	0	3	8	0	0	1	12
1;11	1	6	6	3	0	0	16
2;0	0	5	6	1	4	1	17
2;1	2	9	13	0	2	1	27
2;2	0	5	7	1	1	1	15
2;3	0	8	6	0	1	0	15
2;4	2	14	9	3	2	1	31
2;5	0	5	7	9	0	1	22
2;6	1	5	8	7	0	0	21
2;7	0	9	12	1	0	0	22
2;8	1	8	3	1	0	0	13
2;9	3	4	6	0	0	0	13
2;10	5	11	2	0	0	3	21
2;11	4	7	1	3	1	3	19
3;0	1	4	15	0	0	6	26
3;1	1	5	3	0	0	0	9
3;2	0	4	7	1	3	1	16
3;3	1	3	2	1	1	0	8
Total	22	118	145	32	16	19	352

According to Cheng's (1974) classification, (a) *hoo*: a conjunctive connecting two clauses; (b) *hoo*: a cause verb; (c) *hoo*: 'to give'; (d) *hoo*: the dative case marker; (e) *hoo*: 'by'. Different from Cheng's classification, (f) *hoo* refers to the *hoo* in V-*hoo*-V morphological causatives.

APPENDIX D

OCCURRENCES OF BI-CLAUSAL STRUCTURES BETWEEN 1;2 AND 3;3

	hoo	Other verbs
1;2	0	0
1;3	0	0
1;4	0	0
1;5	0	0
1;6	1	0
1;7	0	0
1;8	2	0
1;9	0	0
1;10	3	0
1;11	7	0
2;0	5	1
2;1	11	1
2;2	5	0
2;3	8	2
2;4	16	1
2;5	5	0
2;6	6	1
2;7	9	2
2;8	9	0
2;9	7	13
2;10	16	7
2;11	11	4
3;0	5	0
3;1	6	1
3;2	4	0
3;3	4	0