Syntax and Contraction

Hiroshi YAMASHITA

1. Introduction

In English, such verbs as want can contract with to, yielding the phonological form wanna.

(1) a. I want to go.
   b. I wanna go.

This type of contraction is not limited to want but can also be seen with handful of other verbs like take, happen and choose, on which we will deliberate in the next section.

Up until now, it has been claimed in the literature that contraction is a pure phonological operation. However, there is some evidence to prove that this is not the case. In this paper, I will present the evidence one by one to reach to the conclusion that the contracted form is inserted as its form from the beginning.

2. What is Contraction?

It has widely been claimed in the literature that want contracts with to at PF, yielding the phonological output wanna.

(2) a. I want to go.
   b. I wanna go.

There are similar cases of contractions, some of which are exhibited in (3) through (5):

(3) a. They were taken to see a better doctor.
   b. They were takena see a better doctor.

(4) a. We just happened to like to write on lots of unrelated topics.
   b. We just happena like to write on lots of unrelated topics.
      (Emonds (1977))

(5) a. A Nikon was chosen to take this picture.
   b. A Nikon was choisena take this picture.

As all these contraction cases display the same distribution as wanna contraction cases in that a verb contracts with the infinitival to that immediately follows it and these operations take place not only in rapid speech but also in (informal) normal-speed speech, I will here concentrate only on wanna contraction for the time being.

We observe several restrictions to this PF-operation of wanna contraction. First, traces of the moved wh-phrases cannot intervene between want and to, as illustrated in (6):
(6) a. Who do you want [w t i to visit Tom]
   b. * Who do you wanna visit Tom?

However, PRO can, as shown in (7) and (8):

(7) a. I want [cp [w PRO to go]]
   b. I wanna go.

(8) a. Who do you want [cp [w PRO to visit t i]]
   b. Who do you wanna visit?

Secondly, if two to-phrases are in coordinated structure, want cannot contract with only one of them, as shown in (9):

(9) a. I want [to dance and to sing]
   b. I wanna dance and sing.
   c. * I wanna dance and to sing.
   d. * I wanna to dance and sing.

Thirdly, similar constraint applies when want is coordinated with another verb such as need.

(10) a. I don’t [need or want] to know about it.
    b. I don’t needa or wanna know about it.
    c. * I don’t needa or want to know about it.
    d. * I don’t need to or wanna know about it.

Fourthly, to cannot attach onto want if the to-phrase is not the complement of want. To see this, examine the relevant examples in (11):

(11) a. I don’t want [anyone [who continue to want]] to stop wanting
    b. * I don’t want [anyone [who continue to wan]] na stop wanting

Finally, to cannot encliticize onto want if want is used as a noun.

(12) a. I cannot expect [np that want] to be satisfied
    b. * I cannot expect [np that wan] na be satisfied

3. Some Problems with PF-Based Approach
The sentence in (2), which represents the most basic case of wanna contraction, is supposed to have the structure in (13).

(2) a. I want to go.
    b. I wanna go.
(13) I want \[ \text{[CP \ [v PRO to go]]} \]

Up until now, it has been claimed that this type of contraction occurs as a result of a kind of phonological operation. Consider first the following contrast in grammaticality between (14b) and (15b):

(14) a. Who, do you want \[ \text{[CP \ [v PRO, to visit t]]} \]
b. Who do you wanna visit?

(15) a. Who, do you want \[ \text{[v t, to visit Tom]} \]
b. * Who do you wanna visit Tom?

Jaeggli (1980) assumes that only Case-marked empty categories are visible to PF operations. If this approach is on the right track, PRO in (14b) is invisible at PF since it bears no Case. Therefore, want and to are adjacent at PF and contraction is allowed. Note that PF operations are allowed only among adjacent elements. In (15b), on the other hand, the trace of who must have Case in order to transmit it to who in the matrix CP. Therefore, this Case-marked trace is visible at the phonological component, and blocks contraction just as in (16), where an overtly expressed element intervenes between want and to.

(16) I want Tom to visit me. (* wanna)

However, there is evidence to show that Case-less empty categories are also visible at PF. Let us here consider cases where a head immediately preceding an empty category must always be stressed. This fact is shown by the following examples, where deletion can take place only when the head preceding the empty category e is stressed:

(17) a. John told me to fix the car, and fixed the car I DID e
    b. * John tells me to fix the car, and fix the car I'll e

(18) A: Is he your friend?
    B: Yes, he IS e
    * Yes, he's e

All the empty categories following the auxiliaries in both (17) and (18) are not nominals, and thus in a Case-less position. If only Case-marked empty categories are visible at PF, the empty categories in the above examples must be invisible at the phonological component as they have no Case, and we can never expect that only stressed head can precede these empty categories. The fact that phonological restrictions are also imposed on these Case-less empty categories as on Case-marked ones does suggest that whether empty categories are Case-marked or not is irrelevant to PF-visibility.

Furthermore, if the assumption that PRO is assigned Null Case (Chomsky (1992) and Chomsky and Lasnik (1992)) is correct, then we can no longer resort to Case to account for the contrast between (14b) and (15b). This is so since, in both cases, Case-marked empty categories intervene between want and to.

All these facts strongly suggest that any empty elements may be visible to phonological operations, regardless of whether they have Case or not. If this is correct, it is very natural to assume that wanna contraction is not a matter to be discussed in the field of phonology, and thus we must look for other possibilities to capture the contrast between (14b) and (15b) and all other relevant cases.

As we saw in the last section, there are some other problems that also point to the same direction that
contractions cannot be PF-related. The first one is related to the above examples in (11) and (12), repeated here for convenience.

(11) a. I don't want [anyone [who continue to want]] to stop wanting
   b. * I don't want [anyone [who continue to want]] na stop wanting

(12) a. I cannot expect [NP that want] to be satisfied
   b. * I cannot expect [NP that wann] na be satisfied

In these cases, want and to are adjacent, regardless of what the syntactic category of want is. If contraction takes place in the phonological component as is assumed by most linguists, we wrongly expect that wanna contraction is possible in these cases. This is so because all phonological operations, by assumption, are sensitive only to the linear ordering of phonemes and never "see" the syntactic category of those involved.

Furthermore, if wanna contraction is purely phonological, why is this type of contraction limited to a handful of verbs. In other words, why can't went contract with to, yielding the phonological output wenna in (19b)?

(19) a. I went to the park.
   b. * I wenna the park.

If contraction of wanna-type is phonological in nature, the rule that governs it must cover all cases that meet certain criterion; i.e., certain linear ordering of phonemes.

Another question that I would like to see here is why wanna contraction is impossible in (10c), repeated here as (20).

(20) * I wanna dance and to sing.

If the base structure for (20) is as in (21), we can never expect that (20) is ungrammatical. This is so since want and to are in next door-relations to each other.

(21) I want [to dance and to sing]

A somewhat related problem arises when we take up such examples as (10):

(10) a. I don't [need or want] to know about it.
   b. I don't needa or wanna know about it.
   c. * I don't needa or want to know about it.
   d. * I don't need to or wanna know about it.

Here, there is only one to, and it is not certain why it can and must simultaneously attach onto two verbs, as in (10b). If to attaches to some verb at PF, the number of the host must be one, as there is only one to in (10). Furthermore, attachment of to to need in (10b) violates the adjacency requirement imposed on PF-operations in general.

Finally, we would like to examine some cases where syntactic or semantic information blocks contraction.
For example, *to* cannot attach onto *want* if the *to*-phrase is not the complement of *want*. To see this, consider the relevant examples in (11):

(11) a. I don't want [anyone [who continue to want]] to stop wanting
    b. *I don't want [anyone [who continue to wan]] na stop wanting

Furthermore, *to* cannot encliticize onto *want* if *want* is used as a noun.

(12) a. I cannot expect [NP that want] to be satisfied
    b. *I cannot expect [NP that wann] na be satisfied

It is implausible to assume that phonological rules can "see" the syntactic category of *want* or the underlying semantic information. For all the negative evidence we have presented so far, we here conclude that contractions that occur in normal-speed speech is not phonological in nature and try to look for alternatives to these cases.


One way to capture the contrast in grammaticality between (14b) and (15b) may be to adopt Baltin's (1995) proposal, in which he assumes that PRO is assigned Null Case in the VP internal subject position and therefore there is no reason for it to move to Spec-IP overtly. If this line of approach is on the right track, the structure for (14) will now be as follows:

(22) Who do you want [CP [IP to PRO, visit t.]]

Since PRO remains in VP at PF, it never intervenes between *want* and *to*, and *wanna* contraction is possible in (14b). Note that since any clause structure must satisfy Extended Projection Principle (EPP), PRO must raise to Spec-IP at LF, but this does not affect the structure at PF anyway.

Now let us go on to (15b). Baltin assumes that in ECM cases, infinitival subject overtly moves to Spec-IP for Case reasons, as in (23b).

(23) a. I believe [IP to [VP John be honest]] (D-structure)
    b. I believe [IP John to [VP t be honest]] (S-structure)

Then, (15b) must have the following derivation:

(24) a. do you want [IP to [VP who visit Tom]] (D-structure)
    b. Who do you want [IP t to [VP t visit Tom]] (S-structure)

Since the intermediate trace of *who* intervenes between *want* and *to*, *wanna* contraction is impossible.

This approach seems to be better than the former one in that we no longer need to stipulate that Caseless empty categories are invisible at PF. However, we still need to stipulate that traces are visible at PF, which is somewhat stipulative and problematic from a phonological point of view.
5. Suggestions

In this section, I will claim, basically following Yamashita (1996), that wanna contraction is not a process of PF-component but rather a matter that should be handled at the level of lexical insertion.

In other words, we will show that wanna is inserted as its form from the beginning. The word wanna differs from the ECM verb want in that the former takes a VP complement with no Case assigning property, while the latter takes an IP-complement with having the power to assign Case to the subject of that IP-complement.

There are some reasons to believe that wanna contraction must be treated as lexicon-based phenomenon. First, to cannot attach onto such verbs as mean, meant, intend, design and so on, even though all these verbs end with either /n/ or /l/. We have already seen in the examples in (3) through (5) and also in the cases of want-to contraction that verbs ending with either /n/ or /l/ can be the host of to. Secondly, all the contraction cases seen above are more likely to be seen in American English than in British English. (See Suiko (1988) for this.)

With this in mind, let us see how our new approach works for the examples listed above. First, let us see how it works for the simplest cases, such as (2b).

(2) b. I wanna go.

As wanna selects VP as its complement, the structure for (2b) will be as in (25):

(25) b. I wanna [vp PRO [v' go]]

Note that, following Baltin (1995), we here assume that PRO is assigned Null Case within VP. As nothing is violated in (2b), we correctly predict that it is perfectly grammatical.

Now let us go on to the contrast between (6b) and (8b):

(6) b. *Who do you wanna visit Tom?

(8) b. Who do you wanna visit?

Under our proposal, (6b) and (8b) have the following structures respectively:

(26) Who do you wanna [vp t i [v' visit Tom]]

(27) Who do you wanna [vp PRO j [v' visit t j]]

In (26), the trace of who is not assigned an appropriate Case, as only Null Case can be assigned at VP. Therefore, (6b) is ungrammatical. In (27), on the other hand, PRO is correctly assigned Null Case at VP and the trace of who is assigned Objective Case by the verb visit. We now can account for the contrast in grammaticality between (6b) and (8b).

Before we proceed on to other examples, let us briefly see how (6a) can be treated.

(5) a. Who do you want [vp t i to [vp t i [v' visit Tom]]]

As I have already claimed, want takes an IP-complement and it also has the power to assign Accusative Case to the subject of that IP. Nothing is violated here, as desired.
Now, let us challenge the more difficult cases of (12) and (13), repeated here solely for the convenience of the readers.

(12) a. I don't want [anyone [who continue to want]] to stop wanting
   b. *I don't want [anyone [who continue to want]] na [VP PRO [v' stop wanting]]
(13) a. I cannot expect [NP that want] to be satisfied
   b. *I cannot expect [NP that want] na be satisfied

In (12b), the VP stop wanting is the complement of the matrix verb want and not of wanna in the relative clause. Therefore, wanna here violates the requirement that it must always take a VP complement.

The same reasoning extends to (13b), regardless of the fact that want here is used as a noun.

Finally, let us investigate whether our approach can be extended to (9) and (10). Let us start off our discussion with (9).

(9) a. I want [to dance and to sing]
   b. I wanna dance and sing.
   c. *I wanna dance and to sing.
   d. *I wanna to dance and sing.

We believe that some kind of deletion has taken place at PF to yield the sentences in (9). If this is correct, the structures for the examples in (9) were as in (28) before this deletion.

(28) a. I [want to dance and wanna to sing]
   b. I wanna dance and wanna sing.
   c. *I wanna dance and want to sing.
   d. *I wanna to dance and wanna sing.

We will further resort to the notion of "deletion under identity", which roughly implies that PF deletion is possible only when there is at least another word that belongs to the same lexical entry in the same sentence. We will call such a word "antecedent" here, and this antecedent must always precede the element that undergoes deletion.

In (28a), want in  can be deleted, as there is another identical word in the sentence that also precedes it. Therefore, deletion of the second want is possible and (9a) is perfect. The same reasoning applies for (28b). Now let us go on to the ill-formed cases of (28c) and (28d). In (28c), want cannot be deleted since, as we have claimed throughout this section, want and wanna belong to different lexical entries. Therefore, deletion of want leads to the ill-formedness of (9c). In (28d), on the other hand, deletion of the second wanna is possible, as there is another wanna in that sentence that also precedes it. However, the sentence is ill-formed from the time wanna in the first conjunct is inserted from the lexicon. This is so since wanna here takes an IP-complement; i.e., PRO to dance.

We are only left with the most difficult and complicated examples in (10).

(10) a. I don't [need or want] to know about it.
   b. I don't needa or wanna know about it.
   c. *I don't needa or want to know about it.
   d. *I don't need to or wanna know about it.
At first glance, we may assume that the same kind of deletion is involved here.

(29) a. I don't [need to know about it or want to know about it]
    b. I don't needa know about it or wanna know about it.
    c. * I don't needa to know about it or want to know about it.
    d. * I don't need to know about it or wanna know about it.

However, the antecedent follows the deleted element in all these cases, and we cannot resort to the notion of "deletion under identity" to account for the grammatical contrasts among these sentences.

Let us instead assume that the examples in (10) involve right dislocation. Thus, the structures for them are as in (30):

(30) a. I don't [need or want] to know about it.
    b. I don't [needa or wanna] know about it.
    c. * I don't [needa or want] to know about it.
    d. * I don't [need to or wanna] know about it.

In (30a), the IP to know about it is an appropriate complement for need, and want and in (30b), the VP know about it is also an appropriate complement for needa and wanna. Thus, these sentences are grammatical. In (30c), on the other hand, the IP to know about it is not an appropriate complement for needa from the onset. If to is inside the conjunct ...[needa or want to] know about it, needa can take an appropriate complement, but the conjunct itself is inappropriate, as we will see just below.

In (30d), the VP know about it is an appropriate complement for need, but the conjunct need to and wanna is inappropriate in that it involves two elements with different categories; wanna is V while need to is V+a part of IP.

5. Conclusion

In this paper, I have claimed that wanna contraction is not a process of PF-component but rather a matter that should be handled at the level of lexical insertion. In other words, we have seen that wanna is inserted as its form from the beginning. The word wanna differs from the ECM verb want in that the former takes a VP complement with no Case assigning property, while the latter takes an IP complement with having the power to assign Case to the subject of that complement IP. This line of approach can solve most of the issues related to (5), (6), (7), (11) and (12).

The mysteries related to (9) can easily be solved if we introduce the notion of "deletion under identity" which, we consider, is needed independently of these cases. The examples in (10) involve right dislocation and we can correctly exclude inappropriate ones.

Acknowledgement

The original version of this paper was presented at the annual meeting of the 21st Kansai Linguistic Society held in November 1995. I would like to thank all the audience there who gave me helpful comments and suggestions.

I also owe a lot to the graduate students of Tohoku University for their patience in reading the original version of this paper. My deepest gratitude goes to Sonoko Chiba and Nobuhiro Miyoshi, who have been
with me since I started this project and always willing to comment on my works. Without their help the night before my presentation, I could not have even made it to the Kansai conference.

Needless to say, all the remaining errors are my own.

Notes
1. There are some reports in the literature that *went* can be contracted with *to*, producing the form *wenna*. But this type of contraction occurs only in rapid speech and never in normal speech. In this sense it differs crucially from the case of *wanna* contraction, which can normally occur in normal-speed speech. We here believe that *wenna*-type should be treated in phonology, while *wanna*-type in syntax.

References
Bresnan, J. W. (1971) "Contraction and the Transformational Cycle in English," ms., MIT.