Research Article

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Topicalization in Japanese Cooking Discourse

Abstract: A topic-*wa*-phrase is analyzed here in written recipes and the corresponding spoken instructional cooking discourse. Despite the possible assumption that the topic phrase is not used in recipes, the analysis shows that ingredients of a recipe are selectively topicalized. Those topicalized are the primary ingredients which are given with substantial procedural descriptions, when these procedures represent a parallel relationship to each other. The topicalization connects the parallel segments so that they constitute coherent discourse and properly represent the intended structure of the recipe. Also, in the spoken discourse, a topic-*wa*-phrase is used in a side-sequence (a digression) to connect with the main segment. These functions of representing important information and connecting parallel elements are consistent with observations in other genres of discourse. On the other hand, the analysis also suggests discourse type-based variations. In the instructional discourse, the "digressions" are connected as part of the coherent discourse. This contrasts with (non-instructional) casual spoken discourse, in which digressions are not topicalized and are detached from the main segment. These variations imply speakers' different pragmatic intentions based on different types of discourse, which are reflected on their choice of referential forms.

Keywords: topic, cohesion, procedural discourse, side-sequence

1 Introduction

A discourse topic which continues in a given stretch of discourse or information which the given discourse is about may take different forms, reflecting the speaker's intentions in how the information is conveyed and the discourse is organized. In Japanese, a discourse topic may be given by either zero anaphora or a topicalized, case-marked, or bare phrase. This study analyzes the use of topicalization with *wa* using written recipes (NHK's *Kyoo no ryoori* 'Today's Cooking') and corresponding spoken instructional cooking discourse (television broadcast) as its main database, and explores how the use of topicalization correlates with the way the discourse is organized.

The linguistic analysis of recipes is not new, and there have been such studies in a broad range of areas such as lexicons, structures, content, and style (see Strauss 2018 and references cited therein). Of particular interest to this study is the recipe-specific usage of grammar. For example, recipes in English exhibit frequent use of null objects, as in *Mix [Ø] well and beat [Ø] for 5 minutes* (Massam & Roberge 1989), which is not found in other types of text (see also Culy 1996; Bender 1999). The structures of Japanese recipes have also been analyzed, including particular sentence structures such as clause linkage (Ono 1988), and stylistic choice and discourse organization such as speech style shifts (Jung 2015) and recipe content and structure (Strauss et al 2018). The present study is an attempt to probe yet another structural

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property of instructional cooking discourse, which concerns how the content is presented and organized, and to describe the usage of topicalization which is prominent in this type of discourse.

It has been observed that subjecthood is closely associated with topicalized elements in Japanese discourse (Fry 2003; Shimojo 2005). Yet procedural discourse (how-to-do-it or how-it-is-done text) such as a food recipe is goal or activity focused and lacks agent orientation because it is for what is done, not for who does it (Longacre 1983); likewise, agentive subjects are not expressed in Japanese recipes (Hinds 1976). Thus, one may wonder whether a topic-*wa*-phrase is used in recipes at all, and if so, what discourse properties are represented by topicalization in the particular type of discourse. The goals of the study are to show that there is systematic and selective use of topic-*wa*-phrases for non-agentive referents in instructional cooking discourse, and to show that, while the findings in the procedural discourse are consistent with the previous observations, the use of topic phrases in the procedural discourse reflects discourse type-specific characteristics as well.

This article is organized as follows. Section 2 outlines discourse properties of a topic-*wa*-phrase in different types of discourse. Section 3 introduces the data for analysis, and Section 4 presents findings and discussion. Concluding remarks are given in Section 5.

2 The discourse properties of a *wa*-marked topic

A discourse topic may take different forms, and the speaker's referential choice reflects the speaker's pragmatic intentions in how the referent is presented and how the discourse is developed. Consider the narrative discourse in (1), the opening part of the Japanese folklore *Kaguyahime* 'the Tale of Princess Kaguya".

(1)a *mukashimukashi*   *take-o*   *totte*   *kurashiteiru*   *ojiisan-ga*   *imashita.*
once.upon.a.time   bamboo-ACC   cut   living   old.man-NOM   existed
'Once upon a time, there lived an old bamboo cutter.'
b *aruhi-no*   *koto*   {Ø /   *ojiisan-wa/ga*}
one.day-LK   thing   old.man-TOP/NOM
takeyabu-de   *hikatteiru*   *fushigina*   *take-o*   *mitsukemashita.*
bamboo.grove-LOC   glowing   mysterious   bamboo-ACC   found
'One day, (the old man) found a glowing and mysterious bamboo shoot in a bamboo grove.'

In (1b), the continuation of the story character *ojiisan* may take at least three different forms: zero anaphora (omission of the argument), a topicalized NP, or an NP with the nominative marker *ga*. The narrator may use the topicalization so that the thematized referent remains "on stage" (Maynard 1980, 1987), which draws the reader's continuing attention to the referent. In contrast, the use of the nominative marker brings out a sense of discontinuity and implies an episodic shift in (1b), which is associated with the temporal change. Or the narrator may omit the NP because the referent is identifiable in this context. The zero form represents the sameness of the topic, as Suzuki (1995: 619) puts it, "the more discontinuous the discourse topic is, the more has to be said at boundaries". Hence, the omission maximizes the sense of continuation of the two states of affairs, the introduction of the bamboo cutter and his finding of the bamboo shoot. In the activation-based approaches to referential forms (Chafe 1987; Gundel et al 1993) and the familiarity-based frameworks (Prince 1981), it is considered that givenness of referents correlates with referring expressions. Referents which are assumed to be active in the hearer's consciousness or already known to the hearer are represented by certain expressions such as pronouns. According to Gundel et al (1993: 285), the most restrictive cognitive status (i.e. current center of attention) is signaled by the form with the least phonetic content, the zero pronoun in the case of Japanese. As we will show, however, the generalization based on givenness does not hold in the present analysis because overt topics are used regardless of the givenness status of referents in the cooking discourse.

Also relevant to the present study are functional variations of a topic-*wa* across different types of discourse. It has been observed that, in written narratives, main or important characters are topicalized and established as a topic (Hinds & Hinds 1979) and maintained by repeated topicalization throughout (Maynard 1980). Main protagonists in novels and short stories are often topicalized even from the initial introductions and presented as a character already familiar to the reader (Yamaguchi 2007: 94). This usage of *wa* best fits the characteristic of a global discourse topic, the central information which is kept activated throughout the text.

On the other hand, the topicalization may be locally motivated, as it has a specialized function of marking a contrast (Clancy & Downing 1987; Isoe 1992; Suzuki 1995) and often represents a switched topic. It has been reported that, in a spontaneous spoken narrative, the use of *wa* is overwhelmingly contrastive to the extent that "the primary function of *wa* is to serve as a local cohesive device, linking textual elements of varying degrees of contrastivity" (Clancy & Downing 1987: 46). This type of cohesion cannot be achieved by zero anaphora. An example in (2) shows "directly contrastive *wa*" in Clancy & Downing's (1987) spoken narrative data.

(2) *yukichan-to*   *satchan-wa*   *atama-ga*   *yokute*
    Yuki-and   Sachi-TOP   head-NOM   good
    kasa-o   *jibuntachi-no*   *yukidaruma-ni*   *sashite*   *oiteagemashita*
    umbrella-ACC   themselves-GEN   snowman-DAT   thrust   put.gave
    'Yuki and Sachi were smart, and stuck an umbrella on their snowman.'
    ame-ga   *futteki-tara*   *yukichan-to*   *satchan-no*   *yukidaruma-wa*   *kichinto*
    rain-NOM   begin.to.fall-when Yuki-and   Sachi-GEN   snowman-TOP   nicely
    shiteita   *kedo*
    was.done   but
    'When it began to rain, Yuki and Sachi's snowman was fine'
    ijiwaru-o   *shita*   *tarookun-no*   *yukidaruma-wa*   *kowarete*   *shimaimashita*
    teasing-ACC   did   Taro-GEN   snowman-TOP   break   ended.up
    'but the snowman of Taro, who had been nasty, ended up getting ruined.'
    (Clancy & Downing 1987: 37)

In the second sentence of (2), the subject of each clause is topicalized, and two states of affairs concerning the two snowmen are presented in parallel and contrasted with each other with respect to the contrasting conditions of the snowmen. If the topic phrases are not used in the sentence, the sense of contrast would weaken considerably, and without the contrastive conjunction *kedo* 'but', the two states of affairs would be markedly disjoint, as in the case of the two juxtaposed sentences in (3).

(3) *yukichan-to*   *satchan-no*   *yukidaruma-ga*   *kichinto* *shiteimashita.*
    Yuki-and   Sachi-GEN   snowman-NOM   nicely   was.done
    'Yuki and Sachi's snowman was fine.'
    ijiwaru-o   *shita*   *tarookun-no*   *yukidaruma-ga*   *kowarete*   *shimaimashita*
    teasing-ACC   did   Taro-GEN   snowman-NOM   break   ended.up
    'The snowman of Taro, who had been nasty, ended up getting ruined.'

The predominance of *wa* for local contrastiveness has been observed in spontaneous conversations as well. In Shimojo's (2005: 181) study, the majority of *wa* use (82% of total *wa*) corresponds with direct contrastive cases. These include "action/state reaction" (Clancy & Downing 1987), where the utterance containing a topic-*wa*-phrase is given as a contrastive reaction to the preceding utterance. In conversations, this type is typically associated with turn taking, as a reaction follows an utterance given by another speaker.

As it is clear from the preceding discussion, different discourse properties of topicalization are prominent in different types of discourse. The present study examines how the properties of the instructional cooking discourse interplay with the properties of a topic-*wa*-phrase. More specifically, the following research

questions are asked: (i) which entities are topicalized in the instructional discourse and why are they topicalized? (ii) do the written recipes and the spoken instructional cooking discourse exhibit the same properties of topicalization? and (iii) how do the findings compare with what we know from other types of discourse? With respect to these questions, we assume that some important recipe items are selectively topicalized to mirror parallel procedures in a recipe, and this is the case with both written and spoken data. Yet, because the spoken discourse contains non-procedural talk as well, we expect some variation in the usage of topicalization. Overall, the central assumption lies in the ambivalence of global and local discourse functions of a topic-*wa*-phrase, with the marking of pragmatically important elements on one hand, which is analogous with global theme marking, and the connecting of parallel discourse segments on the other, which is the locally motivated usage.

3 Data

The main database consists of two written recipes and the corresponding spoken instructional cooking discourse for each recipe. The recipes are publicly made available by NHK's *Kyoo no ryoori* 'Today's Cooking' (https://www.kyounoryouri.jp/). The recipe texts are for two different dishes: *chikin papurika* 'chicken paprika' and *asari no negi raamen* 'clam scallion ramen'. Each recipe contains a list of ingredients alongside the recipe text, which contains 5 to 6 procedural steps.

The spoken discourse is from a TV cooking show of NHK's *Kyoo no ryoori*, in which a cooking specialist shows how to prepare the dish by demonstrating each step of the recipe. The cooking specialist is accompanied throughout the show by an assistant who verbally interacts with the specialist, gives comments, confirms major points of the recipe, and helps keep the procedural discourse on track after the cooking specialist's occasional side comments. Therefore, the spoken data represents conversational discourse consisting of both "task-oriented talk" and "non-task-oriented talk" (Jung 2015: 34). The task-oriented talk corresponds with the instructions of the written recipes and represents the mainstream procedural discourse, and it is intertwined with occasional non-task-oriented talk, which is typically the cooking specialist's supplementary explanations and anecdotes related to the items used for the cooking. For the chicken paprika recipe, a female cooking specialist is accompanied by a male assistant; for the clam scallion ramen recipe, a male cooking specialist is accompanied by a female assistant.

The spoken discourse was transcribed for analysis, and, as in the case of the written recipes, all instances of a topic-*wa*-phrase were identified. In addition to the NHK data, two other written recipes taken from online sources are used as supplementary data to support the argument.

4 Findings and discussion

4.1 The written recipes

This section presents an analysis of the two written recipe texts. The chicken paprika recipe is given in (4) with the English translation of the ingredient list. The entities topicalized with *wa* are underlined. The ellipsed arguments in the original text are given in parentheses in the translation.

(4) Chikin papurika 'Chicken paprika' (https://www.kyounoryouri.jp/recipe/20682_%E3%83%81%E
3%82%AD%E3%83%B3%E3%83%91%E3%83%97%E3%83%AA%E3%82%AB.html)

Ingredients (2-3 servings)

boneless chicken thigh (450g), onion (1/4), mushroom (1 pack or 150g)

[A] paprika (1/2 tbsp), flour (2 tbsp)

chicken bouillon (1/2 cube), paprika (1 1/2 tbsp), cooked rice (desired amount),

small scallion (thinly chopped) (desired amount), salt, pepper, vegetable oil (2 tbsp),

sake (1 tbsp)

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1. *toriniku-wa* *mawarini*   *tsuiteiru abura-o* *teeneeni* *torinozoku*
chicken-TOP around   attached fat-ACC thoroughly remove
'Remove excess fat from the chicken thoroughly.'
tatehanbun-ni   *kiri* *sorezore-o* *gotoobun-ni* *hoochoo-o*
vertical.half-DAT   cut each-ACC five.equal-DAT knife-ACC
nekasete   *sogigirinisuru*
slant   make.cut.at.an.angle
'Cut (the chicken) in half vertically, and by slanting the knife, cut each at a 45 degree angle into five equal pieces.'
batto-ni *ire* *shio* *koshoo* *kaku* *shooshoo-o* *furu*
tray-DAT put salt pepper each little-ACC sprinkle
'Put (the chicken) in a tray and sprinkle salt and pepper a little each (on them).'

2. *tamanegi-wa* *usugiri-ni* *suru*
onion-TOP thin.slice-DAT do
'Thinly slice the onion.'
masshuruumu-wa   *ishizuki-o* *nozoki* *tatehanbun-ni* *kiru*
mushroom-TOP   stem-ACC remove vertical.half-DAT cut
'Destem mushrooms and cut (them) in half vertically.'

3. *(1)-ni* *[A]-o* *manbennaku* *mabushitsukeru*
(1)-DAT [A]-ACC evenly   dredge
'Dredge (1) with [A] evenly.'

4. *atsude-no* *nabe-ni* *saradayu-o* *nesshi* *tamanegi-o* *chuubi-de* *itameru*
thick-LK pan-DAT vegetable.oil-ACC heat onion-ACC medium.heat-INS fry
'Heat vegetable oil in a thick pan and fry the onions over medium heat.'
sukoshi sukitoottara   *toriniku* *masshuruumu-o* *junni*   *kuwaete*
little become.translucent.when chicken mushroom-ACC successively add
karuku itameru
lightly fry
'When (the onions) are translucent, add the chicken and then mushroom
and fry (them) a little bit.'

5. *kokeesuupu-no* *moto-o* *kuzushinagara* *kuwae* *mizu* *kappu* *1+1/2-o* *sosogu.*
bouillon.cube-LK mix-ACC crush.while add water cup 1+1/2-ACC pour
'Add the bouillon cube by crushing it and pour in 1+1/2 cup water.'
tsuyobi-ni *shi* *nitattara* *papurikapaudaa-o* *kuwaete mazeru*
high.heat-DAT do boil.when paprika-ACC add mix
'Turn the heat high, after (it) comes to boil, mix in paprika powder.'
sake *shio* *kosaji* *1/2-o* *kuwaete aji-o* *totonoe* *yowabi-ni* *shite*
sake salt teaspoon 1/2-ACC add taste-ACC adjust low.heat-DAT do

> *karuku mazenagara*   *5-6-punkan*   *niru*
> lightly stir.while   5-6-minute   cook
> 'Add sake and 1/2 teaspoon of salt to taste, turn the heat low, and cook for 5-6 minutes, stirring lightly.'

6. *utsuwa-ni*   *gohan-totomoni mori*   *gohan-no ue-ni hosonegi-o*   *chirasu*
   bowl-DAT   rice-with   put   rice-LK   top-DAT small.green.onion-ACC   sprinkle
   'Serve with rice in a bowl and garnish with small scallions over top of rice.'

First of all, recipes in Japanese exhibit some noticeable characteristics. Hinds (1976: 49) states "there is never, except in contrastive situations, mention of a subject - subject here referring to an agent" and this is the case with the recipe for the present analysis. An agent of an action is consistently not expressed in the written recipe, and this is also the case with the instruction utterances in the spoken cooking discourse which will be discussed later. Also, there is no instance of agents expressed in contrastive situations in the data, except for one case in which an agent (the hearer referent) is topicalized in an interactive (non-instructional) utterance of the spoken discourse. It is noteworthy that agents are consistently omitted despite the use of a conclusive form for a sentence-final predicate (e.g. *torinozoku* 'to remove') instead of an imperative form as is the case in English.

In the chicken paprika recipe in (4), there are three cases of topicalization (chicken, onions, and mushrooms in Steps 1 and 2), and all of these are topicalization of ingredients, which are neither an agent nor a subject of the sentence. While there are only three cases, there is systematic usage of topicalization. First, these are the ingredients which require substantial preparation and are therefore given detailed procedural descriptions. The chicken needs to be defatted, cut, and seasoned, and the onions and mushrooms need to be sliced. The other ingredients, including paprika powder (despite its importance for the dish as implied by the recipe name), which are not topicalized do not require as much preparation to be used.

Secondly, the topicalization in the recipe represents parallel procedures. Consider the intended structure of the recipe, which is given in Figure 1.
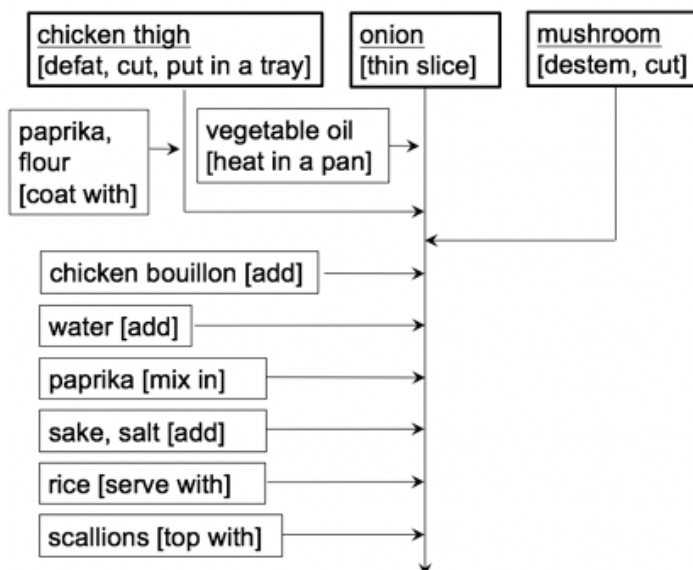

Figure 1: the structure of the chicken paprika recipe

Procedural discourse has contingent temporal succession that "some (often most) of the events or doings are contingent on previous events or doings" (Longacre 1983: 3). The chicken paprika recipe consists of a succession of events: the chicken is defatted, then cut, then put in a tray, then coated with paprika and flour, etc. Each box in Figure 1 represents a procedure for the item as indicated in the square brackets. In addition to contingent temporal succession, cooking instruction consists of parallel procedures which may be completed simultaneously. In the chicken paprika recipe, each of the initial preparations of the major ingredients (chicken, onions, and mushrooms) represents a parallel procedure, and these items are topicalized in the recipe text. Thus, the topicalization in the recipe shows both of the following properties: presentation of procedural descriptions for the topicalized entities, and representation of parallel procedures.

The same observation applies to the clam scallion ramen recipe, which is shown in (5). Again, the topicalized items are underlined.

(5) Asari no negi raamen 'Clam scallion ramen'
(https://www.kyounoryouri.jp/recipe/20620_%E3%81%82%E3%81%95%E3%82%8A%E3%81%AE%E3%81%AD%E3%81%8E%E3%83%A9%E3%83%BC%E3%83%A1%E3%83%B3.html)

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Ingredients (2 servings)
   instant ramen (2 bags), clams in shell (400g)
   [A] scallion (1 stalk), ginger root (1 small piece), garlic (one clove)
   [scallion oil] small scallion (thinly sliced) (60g), vegetable oil (1 tbsp)
   Shaoxing wine (or sake) (1 tbsp), small scallion thinly sliced (desired amount),
   vegetable oil (1 tbsp), salt (1 tsp), black pepper (coarse ground) (little bit)

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1. <u>*[A]-no   negi-to*</u>   *shooga-wa*   5cm   *nagawa-no*   *sengiri*
   [A]-LK   scallion-and   ginger.root-TOP   5.cm   length-LK   julienne.strips
   <u>*ninniku-wa*</u>   *shin-o*   *nozoite usugiri-ni   suru*
   garlic-TOP   germ-ACC   remove   thin.slice-DAT   do
   'Cut <u>scallions and ginger in (A)</u> into 5 cm strips, and degerm and thin-slice <u>garlic</u>.'
   ookime-no   furaipan-ni   saradayu   oosaji   1-o   nesshite [A]-o   itame
   largish-LK   frying.pan-DAT   vegetable.oil   tablespoon   1-ACC heat   [A]-ACC fry
   kaori-ga   tattara   mizu   kappu   3+1/2-o kuwaete   tsuyobi-de   nitataseru
   smell-NOM   rise.when   water   cup   3+1/2-ACC add   high.heat-INS boil
   'Heat 1 tbsp vegetable oil in a largish frying pan and fry [A], and when (it) smells good,
   add 3 1/2 cup water and boil over high heat.'

2. <u>*asari-wa*</u>   *kara to kara-o   kosuriawasete arai   1-ni   kuwaeru*
   clam-TOP   shell and shell-ACC rub.together   wash   1-DAT   add
   'Wash <u>clams</u> by rubbing the shells together and add (them) to (1).'
   shookooshu   shio   kosaji 1 kurokoshoo   shooshoo-o   kuwae huta-o   suru
   Shaoxing.wine   salt   teaspoon black.pepper   little-ACC   add   lid-ACC do
   'Add Shaoxing wine, 1 tsp salt, and black pepper, and cover.'

3. *betsuno furaipan-ni   [negiabura]-no   zairyoo-o   ire chuubi-ni   kakeru*
   another frying.pan-DAT   [scallion.oil]-LK   ingredient-ACC   put medium.heat-DAT   place
   'Put the ingredients for scallion oil in another frying pan, and put (it) over medium heat.'
   abura-ga   najimi   negi-ga   shinnarisuru-made   itameru
   oil-NOM   mix   scallion-NOM   become.soft-until   fry
   'Cook until (it) is mixed with oil and becomes soft.'

4. *2-no*   *asari-no kuchi-ga*   *hiraitara*   *3-no*   *[negiabura]-o*   *kuwaeru*
   2-LK   clam-LK shell-NOM   open.when   3-LK   [scallion.oil]-ACC   add
   'After the clams in (2) are open, add the scallion oil in (3).'

5. *nabe-ni*   *nettoo-o*   *wakashite*   *insutantoraamen-o*   *ire*
   pan-DAT   boiling.water-ACC   boil   instant.ramen-ACC   put
   nisankai   *sashimizu-o*   *shinagara*   *hukuro-no*   *hyooji-yori*
   2.3.times   added.water-ACC   do.while   package-LK   direction-than
   sukoshi mijikameni   *yuderu*
   little   somewhat.less   boil
   'Boil water in a pan and put instant ramen, add water 2 or 3 times and cook a little less than
   the recommended package cooking time.'
   yu-o   *shikkari*   *kitte*   *utsuwa-ni*   *mori*   *4-o*   *kakeru*
   hot.water-ACC   thoroughly   drain   dish-DAT   serve   4-ACC   put.over
   'Drain (the noodle) thoroughly and serve in a dish, and put (4) over.'
   konomi-de   *hosonegi-o*   *chirasu*
   liking-INS   small.green.onion-ACC   sprinkle
   'Sprinkle small scallions if desired.'

In this recipe, scallions and ginger together, garlic, and clams are topicalized (Steps 1 and 2) and all other ingredients are not. As in the case of paprika chicken, the topicalized ingredients are given substantial procedural descriptions. The scallions and ginger are cut into strips, the garlic is degermed and thin-sliced; these together are fried and boiled. The clams are scrub-cleaned before being added to the broth. The structure of the recipe is presented in Figure 2.
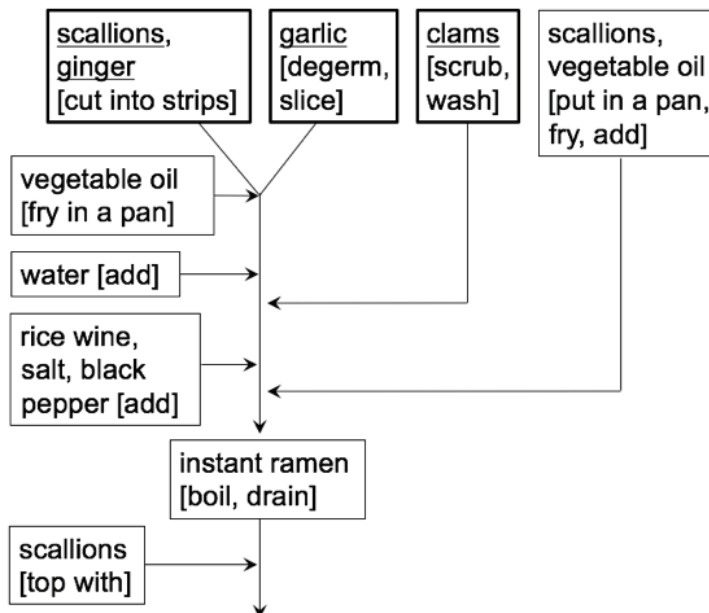

Figure 2: The structure of the clam scallion ramen recipe

Again, the structure represents both sequential and parallel relationships, and the parallel procedures are associated with the topicalization. Two clarifications are in order here. First, instant ramen (Step 5) can technically be presented as a parallel procedure because it is possible to boil and drain the noodles in advance simultaneously with the procedures up to Step 4. However, it is reasonable to assume that the

parallel interpretation is not the intended structure. The recipe presents the preparation of noodles as part of the final step, which is to follow Step 4. This makes sense because ramen noodles become too soft if not served immediately; thus, topicalization of instant ramen is not expected in this recipe.

On the other hand, the recipe presents Step 3 (scallion oil) as a parallel procedure, to be completed while the clams are still cooking. Yet, this segment does not use topicalization, and this correlates with the fact that there is not as much procedural description given for this step as the previous steps. The recipe assumes that the scallions are pre-sliced, as indicated in the ingredient list, and therefore, Step 3 is as simple as frying the scallions with oil. In the spoken discourse, however, the scallion oil is topicalized for the introduction of Step 3. This will be discussed further in the following section.

The observations of the written recipes are summarized as follows. First, topicalization is used only for the ingredients which are given procedural descriptions. Therefore, they persist more in the recipe text than the other "supporting" ingredients, such as salt, pepper, water, and oil, which appear with minimal procedural descriptions for them, if any. The topicalization for persistent reference in recipes is analogous to topicalization of important characters in narrative discourse as discussed in Section 2 (Maynard 1987; Yamaguchi 2007). Naturally, important characters exhibit greater persistence in discourse than peripheral characters, as those main characters are the main plot elements. Likewise, those topicalized ingredients are the featured recipe elements which define the dish. However, it should be noted that it is not the saliency of ingredients per se that is associated with topicalization. It is rather pragmatic importance of ingredients, or noteworthiness, for the purpose of a procedural discourse. Salt, for example, is essential for seasoning, and undoubtedly, it is universally an important ingredient. Yet, in the recipes under discussion, salt represents little pragmatic importance because it does not need any procedural description more than specifying the quantity to be used. This implies that if a recipe requires procedural descriptions for salt, it would be an important element for the discourse, and it is indeed the case. Consider the following recipe posted online.

(6) Meitanmen 'Chinese-style stir-fried vegetable noodle soup' (http://in-shoku.info/page.php?p=recipes070)

shio-wa	*arakajime*	*utsuwa-ni*	*ireteokimasu.*		
salt-TOP	in.advance	bowl-DAT	put		

'Put <u>salt</u> in a bowl in advance.'

sukittoshita	*toomeekan-ga*		*demasu.*		
refreshing	feeling.of.transparency-NOM		come.out		

'(It) brings out a feeling of refreshing transparency.'

aji-ga	*togarisuginaiyooni*		*nihonshu-mo*	*isshoni.*	
taste-NOM	not.to.be.too.strong		sake-too	together	

'(Combine) with sake so that the taste does not become too strong.'

taasai-wa	*gomaabura-o*	*isshoni*	*irete*	*yuderu-koto-de*	
tatsoi-TOP	sesame.oil-ACC	together	put	boil-NMZ-INS	
koku-mo	*dete*	*tsuyatsuyatoshita*		*iro-ni*	*shiagarimasu.*
savor-too	come.out	glossy		color-DAT	finish

'Tatsoi is cooked savory and glossy by boiling it with sesame oil.'

The example in (6) is an introduction of the recipe text, which is followed by an ingredient list and step-by-step instructions, and in this introductory passage, salt and tatsoi are topicalized and each is given procedural descriptions. For this recipe, like tatsoi for noodle topping, salt is a noteworthy item because the instruction calls for the procedural description beyond description of mere quantity (which is given later in the recipe).

The other important property of topicalization in a recipe is representation of *parallel cohesion*. As discussed earlier in this section, a recipe has a complex structure, consisting of both parallel and series relationships of procedures. For example, in the paprika chicken recipe (Figure 1, elaborated as Figure 3), some instructions have contingent temporal succession (those vertically arranged in the figure), and these instructions represent *series cohesion*. These steps are not reversible. On the other hand, some of the

instructions represent parallel cohesion (those horizontally arranged in the figure). These instructions do not have a sequential relationship, and they may even be followed concurrently if logistically possible (if prepared by a team of people, for example).
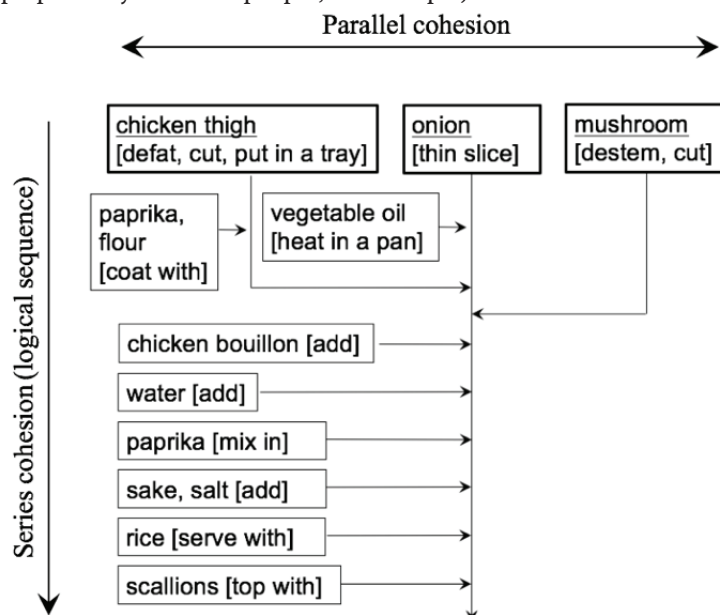

Figure 3: Two types of cohesion in a recipe

In the recipes examined, the continuing ingredients in series cohesion are either omitted (zero anaphora) or case-marked. In Step 1 of the chicken paprika recipe (4), for example, 'the chicken' is omitted in the second and third sentences (as indicated by the parentheses in the translation), and it is also overtly expressed with the accusative marker (*sorezore-o* 'each (chicken pieces)') in the second sentence. In contrast, the ingredients in parallel cohesion are topicalized, and the topicalization functions as a cohesive device to connect the separate procedural segments in parallel, which would otherwise be disjoint and blur the intended structure. Without the topicalization, the recipe may even be interpreted as if all procedures are intended to be sequential. It was noted earlier that topicalization is used for noteworthy information for the purpose of a procedural discourse. Topicalized ingredients given in parallel cohesion are important elements in this sense, and they are given more detailed procedural descriptions.

4.2 The spoken instructional cooking discourse

4.2.1 Topicalization for parallel procedures

The properties of topicalization observed in the written recipes are also the case with the spoken cooking discourse, despite the conversational discourse maintained by the speakers. Although it is an instructional discourse, it exhibits ample characteristics of spoken language. In addition to interactional turns, many utterances are short, and the utterances of the cooking specialists, in particular, contain fillers, utterance-internal interactional elements often accompanied by a pause, repetitions, and post-verbal elements, all of which are the characteristics of the language of conversation (Maynard 1989). The discourse uses the formal speech style with the polite forms of predicates (-*desu*, -*masu*), and unlike the written recipes, the spoken discourse shows occasional use of the imperative form (-*tekudasai*) for the instructions.

In comparison with the written recipes, the topicalization of the important ingredients therein corresponds with topicalization in the spoken discourse. Example (7) shows the initial segment of the spoken discourse for the clam scallion ramen. A's utterances are those of the assistant and C's utterances are those of the cooking specialist.

(7) A1   *dewa   hutashiname   asari-no negi   raamen oshieteitadakimasu*
      now   second.dish   clam-LK scallion ramen   teach.receive
      'Now the second dish, please show (us how to make) the clam scallion ramen.'

C1   *hai*
      yes

A2   *sa   mazuwa   negi   desu   ne*
      now   first   scallion COP   IT
      'Now, first of all, (it's) scallions.'

C2   *hai*
      yes

A3   <u>*negi-wa*</u>   *hutariyoo-de*   *ippon   desu*
      scallion-TOP   two.people.use-INS   1.CL   COP
      '<u>Scallions</u>, one shoot for two servings.'

C3   *negi-o desune konoyooni   ne   hosogiri-ni   suru   wake   desu ne*
      scallion-ACC IT   like.so   IT   thin.slice-DAT do   SE   COP IT
      'Cut scallions into thin strips like so.'

In (7.A2), the assistant introduces scallion, and in (7.A3), the scallion is topicalized and its quantity is specified. Then, it continues in the following utterance by the cooking specialist, who explains and shows how the scallions should be cut. The written recipe contains only one clause (and the ingredient list) to introduce scallion, but in the spoken discourse, the important ingredient persists over the three separate utterances. After (7.C3), the scallions continue to be talked about in the following twelve clauses, where the cooking specialist explains why they should be cut in a particular way.

    Then, ginger root and garlic are topicalized for their introduction as well, as shown in (8).

(8) A1   *saa   negi   kiriowarimashita*
      now   scallion   finished.cutting
      'Now (we) finished cutting scallions.'

A2   <u>*hoka-no   guzai-wa*</u>
      other-LK   ingredient-TOP
      '<u>The other ingredients</u>'

C1   *sore-to ne   anoo   shooga   desu   ne*
      that-and IT   F   ginger.root   COP   IT
      'And um (it's) ginger root.'

C2   <u>*shooga-wa*</u>   *ne   hosogiri   desu*
      ginger.root-TOP   IT   thin.slice   COP
      '<u>Ginger root</u>, (it's) thin slice.'

A3   *hai* <u>*shooga-wa*</u>   *gosenchi-no   nagasa-no   sengiri   hitokake desu*
      yes ginger.root-TOP five.centimeter-LK length-LK   finely.cut.strip   one.piece COP
      'Yes, <u>ginger root</u> is one piece (cut into) five centimeters strips.'

C3   *soreto   ato   ato   <u>ninniku-wa</u>   usugiri desu   ne*
      also   and   and   garlic-TOP   thin.slice COP   IT
      'And also, <u>garlic</u>, thin slices.'

A4   *ninniku-mo   hitokake   desu*
      garlic-too   one.clove   COP
      'Garlic is one clove too.'

C4   *hai*
      yes

In (8.A2), the assistant topicalizes "the other ingredients" as a lead-in for the introduction of ginger root and garlic, and ginger root is topicalized in the cooking specialist's utterance (8.C2); the topicalization is repeated in the immediately following utterance by the assistant, who clarifies the quantity and the length of the strips. Then, garlic is topicalized in (8.C3). The repeated topicalization for the same referent "ginger root" is noteworthy because it aligns with the claim that the important ingredients which represent parallel organization of a recipe are systematically topicalized. The repetition of the topic is not predicted by the activation-based approaches to referential forms (Chafe 1987; Gundel et al 1993) and the familiarity-based frameworks (Prince 1981), since the referent should be in focus for the repeated reference, and therefore, would be expected to take a reduced form such as zero anaphor.

Following the segment in (8), the cooking specialist fries those ingredients in a pan and adds water to boil. Then, they introduce the clams as shown in (9), first in a fragment with the copula in (C1) and topicalization in (A1), which is followed by the detailed instruction of how to clean the clams.

(9) C1　*de　　ato　　eee　　asari　　desu　　ne*
　　　　　then　and　　F　　　clam　　COP　　IT
　　　　　'And then, (it's) clams.'

　　A1　*hai　　<u>asari-wa</u>　　　yonhyakuguramu sunazu　sunanukizumi-no mono　　desu ne*
　　　　　yes　　clam-TOP　　　　400.gram　　　FRG　　de.sanded-LK　　thing　　COP IT
　　　　　'Yes, <u>clams</u> are 400 grams and have been de-sanded.'

　　C2　*de　　ne　　kattekita　toki-ni　　　anoo　asari-o　　desune　yoku　　koo*
　　　　　and　IT　　bought　　time-COP:ADV　F　　clam-ACC　IT　　　well　　like.so
　　　　　te-de　　desune asari　　dooshi-o　　　atete　ishi　toka　tsuitemasu　kara
　　　　　hand-INS IT　　clam　　each.other-ACC　hit　　stone etc.　attached　because
　　　　　shikkarito　　　koo　　arattekudasai
　　　　　thoroughly　　like.so　wash:IMP
　　　　　'when you bought (the clams), take the clams and rub them, and wash (them)
　　　　　thoroughly like so, because there is grit (on them).'

After adding the clams to the soup in the pan, scallion oil is introduced. While it is not topicalized in the written recipe, as we saw earlier in (5), Step 3, the spoken discourse uses a topic sentence in which a demonstrative pronoun refers to the scallion oil, as shown in (10.C1). For this step, the scallion oil has already been prepared, and while uttering (C1), the cooking specialist shows the scallion oil in a pan, as the camera switches back to a wide angle to show the whole stovetop.

(10) C1　*de　　<u>kore-wa</u>　　　negiabura-na　　n　　　desu　　kedo*
　　　　　and　　this-TOP　　　scallion.oil-LK　NMZ　　COP　　but
　　　　　'And <u>this</u> is scallion oil.'

　　A1　*a　　jikasee-no　　negiabura*
　　　　　ah　home.made-LK　scallion.oil
　　　　　'Ah, (it's) home-made scallion oil.'

　　C2　*hai*
　　　　　yes

　　A2　*hai*
　　　　　yes

　　C3　*anoo　mazu　furaipan-ni　　desune anoo　ano　　saradaabura-o　irete*
　　　　　F　　first　pan-DAT　　　IT　　F　　F　　salad.oil-ACC　put
　　　　　'Um, first, put vegetable oil in the pan'

　　A3　*hai*
　　　　　yes

C4	*de*	*ato*	*negi-o*	*irete*	*ato*	*karuku*	*itameru*	*dake*
	then	and	scallion-ACC	put	and	lightly	fry	only

'then, put the scallions and just fry (them) a little bit.'

A4	*ee*	*a*	*moo*	*itameru*	*dake*
	yes	ah	EMPH	fry	only

'Yes, ah, just fry (it)?'

C5	*hai*	*hijooni*	*kore*	*oishii*	*desu*	*yo*
	yes	very	this	delicious	COP	IT

'Yes, this is very delicious.'

A5	*hai*	*dewa*	*asari-no suupu-ni*	*negiabura-o*	*awaseteikimaasu*
	yes	now	clam-LK soup-DAT	scallion.oil-ACC	continue.adding

'Yes, now, (we) add the scallion oil to the clam soup.'

In both the written recipe and the spoken discourse, scallion oil is not given a description as fully as the other major ingredients. In the written recipe, the preparation of the scallion is incorporated into the ingredient list as "scallion thinly sliced", and the slicing part is not described in the main text. In the spoken discourse, this preparatory step is not shown either. This makes the presentation of this step look easy and simple, as the cooking specialist says "just fry" in (10.C4). Yet, the spoken discourse stays on the scallion oil for seven utterance units (excluding the backchannel responses) and clearly serves as an important element of this segment, which explains the topicalization for the introduction. The presence of the expanded segment for the scallion oil seems relevant to the particular communication environment of the TV program, where instructions tend to be spelled out using all available means to ensure clarity for viewers. The spoken discourse often repeats topicalization for the same entities, as pointed out earlier. In addition, the TV discourse utilizes captions on the screen, which textually present the ingredients and quantities of those ingredients simultaneously when they are mentioned. This is also the case with the scallion oil; in the segment given in (10), the caption appears to show "small scallion (thinly sliced) - 60g, vegetable oil - 1 tbsp". In the written recipes, on the other hand, textual simplicity seems to be a priority for readability; therefore, the instructions are kept to a minimum without redundancy. In other words, different communication environments associated with the two types of discourse are reflected in the observed linguistic differences.

Returning to the topic of topicalization for parallel procedures, the written and spoken chicken paprika discourse shows the same correspondence in topicalization. The topicalized ingredients in the written recipe (chicken, onions and mushrooms) are also topicalized in the spoken discourse. The beginning part is shown in (11), in which one of the main ingredients, chicken, is discussed.

(11) C1	dewa	mazuwa	chikinpapurika-kara	oshieteitadakimashoo
	now	first	chicken.paprika-ABL	teach.receive:VOL

'Now, please show (us how to make) chicken paprika.'

A1	koko-ni	ne	tori-no	momoniku-o	yooishimashita
	here-DAT	IT	chicken-LK	thigh-ACC	prepared

'We have chicken thighs here.'

A2	<u>kore-wa</u>	ne	totemo	kinnikushitsu	de	soshite	katsudooshimasu	node	ne
	this-TOP	IT	very	muscular	COP	and	move	so	IT

'<u>This</u> is very muscular and active (muscles), so...'

A3	ano	kawame-mo	abura-mo	totemo	ano
	F	skin-too	fat-too	very	F
	koi	n	desu	yo	kore-ga	mata
	thick	NMZ	COP	IT	this-NOM	EMPH

'both skin and fat are thick indeed.'

A4	daka	torimasu
	so	remove

| | 'So, (we) remove (them).' |

C2	hai	torimomoniku	ni-mai-bun
	yes	chicken.thigh	two-CL-portion
	'Yes, (it's) two chicken thighs.'

A5	hai	kono	kono ne	kawa	toisshoni	tsuiteiru	abura-o	tottahoogayoroshiidesu	yo
	yes	this	this IT	skin	together	attached	fat-ACC	should.remove	IT
	'Yes, (you) should remove this, the fat attached with the skin.'

A6	soredemo	madamada	nokotte	tsuiteimasu	node	ne
	yet	still	remain	attached	so	IT
	'Even so, there is still fat remaining, so...'

C3	hai
	yes

A7	<u>kore-wa</u>	mazu	koo	abura-o	totteitadakitai	wane
	this-TOP	first	like.so	fat-ACC	want.to.have.removed	IT
	'This (chicken thigh), remove the fat like so first of all.'

C4	hai
	yes

A8	soo tottemo	ne	mottainaikotonai	no	takusan	tsuitemasu	kara
	yes EMPH	IT	not.waistful	IT	much	attached	because
	'Yes, not a waste (to remove it), because there is a lot of (fat).'

C5	hai
	yes

A9	sooshimashitara	kore-o	ne	tatehanbun-ni	kirimasu
	then	this-ACC	IT	vertical.half-DAT	cut
	'Then, cut this in half vertically.'

In this discourse, chicken thigh is introduced in (11.A1) as the accusative argument, and it is topicalized in (A2) and (A7). As indicated earlier, one noticeable characteristic of the spoken discourse is a mix of task-oriented and non-task-oriented talk. The former provides cooking instructions, and the latter consists of utterances such as background information and anecdotes, which are not directly related to the cooking instructions (e.g. 11.A2-A3). The topicalization is found in both types of discourse, but for different reasons (non-task-oriented talk is discussed further in the following section). The topicalization in (A7) is directly related to the cooking instruction and corresponds with the topicalization in the written recipe.

Some clarification about parallel procedures is in order. As we saw in Figure 3, a recipe has a structure consisting of both parallel and sequential procedures, and we have observed that ingredients which are given procedural descriptions in each parallel procedure are systematically topicalized. With the topicalization, each mini procedural discourse can achieve cohesion to connect with each other and to collectively represent one coherent instructional discourse as a whole. In the spoken discourse discussed in this section, the parallel procedures are not followed in parallel because the preparation of one ingredient is followed by the preparation of another, as one would normally do to make the dish. Nevertheless, these "parallel" procedures are still in a parallel relationship because they are separate procedures and not connected with each other until those separate ingredients are put together. Topicalization of ingredients links these separate procedures and represents the intended parallel organization of the instructional discourse.

4.2.2 Topicalization for parallel non-procedural discourse

In addition to the representation of parallel organization discussed in the preceding section, the spoken discourse exhibits a different but related function of topicalization. The cooking specialists sometimes digress from the mainstream instructional discourse and insert a side note related to the cooking in progress.

The example in (12) is from the chicken paprika discourse and contains two separate side notes (separated by lines in the example) inserted in the mainstream instructional discourse.

(12) A1 *saa*   *soredewa*   *mazuwa etto*   *tamanegi-kara*   *desu*   *ka*
         now   then   first   F   onion-ABL   COP   Q
         'Now, first, ah, (do we start) with onions?'

C1   *soo*   *desu*
     so   COP
     '(That's) right.'
     yonbunnoichi   *desu*   *kedo*   *ne*
     1/4   COP   but   IT
     '(It's) 1/4, but'

C2   *ano*   *kono*   *nabe-wa karadaki-waikemasen*
     F   this   pan-TOP heating.empty-must.not
     'Um, <u>this pan</u>, (you) must not heat (it) empty.'

A2   *hai*
     yes

C3   *abura-o irete*   *kara*   *kaketahoogaii*   *no*
     oil-ACC put   after   should.heat   IT
     '(It's) better to heat (it) after putting oil (in it).'

C4   *nazeka-toyuu-to* *arumi*   *desu*   *kara*
     why-QT-if   aluminum   COP   because
     'Because (it's) aluminum.'

C5   *tetsu-no nabe-nara*   *karadaki*   *heeki*
     iron-LK pan-if   heating.empty   okay
     'If (it's) an iron pan, (it's) okay to heat (it) empty.'

A3   *un*   *un*   *saradayu-ga*   *oosajini*   *hairimashita*
     yeah   yeah   oil-NOM   2.tablespoon   entered
     'Yeah, yeah, (we) put two tablespoons of vegetable oil.'

C6   *soo*   *desu*
     so   COP
     '(That's) right.'

A4   *hai*
     yes

C7   *soshite*   *koko-e*   *mottekimaasu*
     then   here-ALL   bring
     'Then, (I'll) bring (the pan) over here (on the burner).'

A5   *hai*
     yes

C8   *ne*   *kore-wa uchidashiarumi-no*   *uchidashinabe*   *desu*   *ne*
     IT   this-TOP hammered.aluminum-LK   hammered.pan   COP   IT
     'See, <u>this</u> is a hammered aluminum pan, isn't it?'

A6   *ee*   *ee*   *ee*
     yes   yes   yes

C9   *tamanegi-wa*   *yonbunnoikko*   *desu*   *kara*
     onion-TOP   1/4.CL   COP   because
     'Because <u>the onion</u> is quartered'

A7   *a hai*
     ah yes

C10 *kore-o*   *moo*   *goku*   *usugiri-de*   *ii*   *n*   *desu*   *yo*
     this-ACC EMPH   very   thin.slice-INS good   NMZ   COP   IT

‘(you) can slice this very thinly.’

A8   *usugiri-ni*   *nattemasu*
      thin.slice-COP:ADV   has.become
      ‘(The onion) has been thin-sliced.’

In (12), the cooking specialist starts cooking the onions in a pan. Onions are introduced in (A1), which would continue with (C9) if there were no insertion of the side-sequence. Note that the onion is one of the main ingredients that represents the parallel relationship (Figure 1), which explains the topicalization in (C9). However, the cooking specialist digresses at (C2) to comment on the pan she is using, and this digression is initiated with the topicalization of the pan. The dialogue is back to the instructional discourse at (A3), and again, a non-instructional side-sequence is inserted at (C8) to comment about the pan briefly (the demonstrative pronoun to refer to the pan is topicalized).

This type of topicalization for a side-sequence is used fifteen times in the chicken paprika discourse, and the high frequency seems to be ascribed to the personality of the particular cooking specialist, who is talkative and tends to insert her own commentary wherever she likes. The same type of topicalization is observed in the ramen discourse also, though there was only one instance, as shown in (13).

(13) A1   *sakihodo-no*   *aemen-to*   *onajiyooni*   *hukuro-no hyooji jikan yorimo*
           previous-LK   noodle.with.sauce-as   in.the.same.way bag-LK indication time   than
           sukoshi mijikameni   *yudeteimasu*
           little   short   cook
           ‘Like the previous noodle with sauce, (we) cooked (the noodle) a little less than recommended package cooking time.’
     A2   *nisankai*   *sashimizu-o*   *shitekudasai*   *ne*
           two.or.three.times   adding.water-ACC   do:IMP   IT
           ‘Please add water two or three times (while cooking the noodle).’

     C1   <u>*kore-wa*</u> *ne*   *anoo*   *betsuno yudete betsuno kono*   *otsuyu-de taberudesho*
           this-TOP IT   F   another cook   another this   soup-INS eat.PRS
           ‘This (noodle), (you) cook separately and eat in this separate soup, don’t you?’
     A3   *hai*   *asari-no ima*   *suupu-o*   *ne*   *kaketemasu*   *ne*
           yes   clam-LK now   soup-ACC   IT   putting   IT
           ‘Yes, (you) are putting the clam soup over (the noodle) now.’
     C2   *soo*   *suru-to ne anoo aburabun-ga torete*   *hijooni oishii-to*   *omoimasu yo kore*
           so   do-if   IT F   fat-NOM   come.off   very   delicious-QT   think   IT this
           ‘In doing so, um, fat is removed and (I) think this is very delicious.’
     A4   *a*   *men-o*   *yudeta* *oyu-o*   *tsukawanaide betsuno suupu-o tsukau-to*
           ah   noodle-o cook   hot.water-ACC   use.without   another soup-ACC use-if
           aburapposa-ga   *kaishoodekiru-toyuukoto-na*   *n*   *desu*   *ne*
           greasiness-NOM   can.solve-NMZ-COP:ATT   NMZ   COP   IT
           ‘An, (you) mean, without using the water (you) cooked the noodle in, by using the separate soup, (you) can get rid of greasiness.’

     C3   *de*   *tsuyu-o*   *konoyooni*   *sosoide*
           and   soup-ACC   in.this.way   pour
           ‘And pour the soup like so’
     A5   *asari*   *tappuri*   *desu*   *ne*
           clam   rich   COP   IT
           ‘(It’s) rich with clams.’

The excerpt above corresponds with the last step of the ramen recipe, Step 5 of (5). As the cooking specialist puts the clam soup over the noodle, he inserts the side-sequence (C1, C2) to explain why the noodles are

cooked separately. This digression starts in a topic sentence, and then he returns to the main discourse at (C3).

Use of topicalization for a side-sequence is in fact observed in written recipes as well. The passage in (14) is from a website for a beef rice bowl recipe and the passage appears under the ingredient list.

(14) Bannoo shiodare o tsukatta gyuudon 'Beef rice bowl with all-purpose salty sauce' (https://nanapi.jp/ja/119647)

> *shio-wa   sukoshizutsu irete ajimishiyoo*
> salt-TOP little.by.little put   let's.tate
> 'Add salt little by little and test the taste.'
> *shio   igaini-mo torigarasuupu-no   enbun-ya   remon-no   sanmi-ga   aru   node*
> salt   except-too chicken.broth-LK   salinity-and lemon-LK   acidity-NOM exist because
> *shoppaku   naru   koto-ga   arimasu.*
> salty   become NMZ-NOM   exist
> 'Because besides salt (to be added), there is salt in the chicken broth and acid taste of lemon,
> (it) may be (already) salty.'
> *hajime   kara   shio-o zenryoo   irezuni sukoshizutsu   kuwae,*
> beginning   from   salt-ACC all.amount   not.put little.by.little   add
> *konomi-no   kosa-ni   naru-yooni   ajimishi-nagara*
> one's.taste-LK   saltiness-COP:ADV   become-so.that   test.taste-while
> *choosetsushitemitekudasai   ne*
> try.adjusting:IMP   IT
> 'Add salt little by little, not putting all the salt at once, and test the taste and adjust (it)
> to your liking.'

The recipe uses four side-sequences including this passage (two in the ingredient list and two in the instructional text), and each sequence uses topicalization of a key element. It should be noted that the text style of three side-sequences is noticeably different from the step-by-step instructions, with the use of *ajimishiyoo* 'let's taste' (cohortative) and *choosetsushitekudasai* 'please adjust' (imperative), *daijoobudesu!* '(it is) okay!' (exclamatory). In (14), salt is topicalized to introduce the side-sequence, but it is also one of the key elements of the recipe which features the salty sauce and is given the detailed descriptions. This aligns with the earlier discussion of topicalization used for noteworthy ingredients.

The two types of parallel structure discussed thus far represent different rhetorical structures. Parallel segments which present procedural descriptions are all central to the purpose of the procedural discourse, but a parallel segment which contains a side-sequence presents a background or elaboration, hence subordinate to the procedural discourse. But in both cases, topicalization relates separate parallel segments so that they are made cohesive with each other. As shown earlier, topicalization for parallel procedural discourse is symmetrical because each parallel segment uses topicalization, in contrast with asymmetrical topicalization for a side-sequence, which is used only in the subordinate segment.

In fact, use of side-sequence or interruption is commonly found across different types of discourse (Fox 1987; Yoshida 2011). With respect to use of topicalization in Japanese, however, there is an interesting contrast between the instructional discourse discussed in this study and non-procedural conversational Japanese. A study of two-party casual conversations in Shimojo (2005) revealed that a topic-*wa*-phrase typically represents information which persists in the subsequent discourse, following the reference to the information in the topic construction. In other words, topicalization serves as a mental processing instruction for the hearer to understand the importance of information for the purpose of the given discourse. Therefore, a side-sequence typically lacks a post-nominal marker (i.e. no topicalization). An example is given in (15).

(15) B1   *soshite*   *soko-ni*   *eetto*   *kuriimusoosu-o*   *irete*
           and   there-DAT   F   cream.sauce-ACC put
           'Then (I) add cream sauce there.'

     B2   *beekon*   *itameru* *toki-ni*   *shiokoshoo-mo*   *huttoite*
           bacon   fry   time-COP:ADV   salt.and.pepper-too   shake
           'When (I) fry the bacon, (I) sprinkle salt and pepper also.'

     B3   *dee*   *kuriimusoosu*   *irete*
           and   cream.sauce   put
           'and (I) put in cream sauce.'

     A1   *kekkoo*   *ireta*   <u>*shiokoshoo-Ø*</u>?
           quite   put   salt.and.pepper
           'Did (you) add a lot of <u>salt and pepper</u>?'

     A2   *beekon-Ø*   *shoppai yatsu?*
           bacon   salty   one
           'Is <u>the bacon</u> the salty one?'

     B4   *beekon-wa*   *kekkoo*   *shoppakatta*   *kara*
           bacon-TOP   quite   was.salty   because
           'Because the bacon was quite salty'

     B5   *demo*   *aan*   *men-ga*   *haitte*   *soosu-ga*   *haitte-tte*   *naru-to*
           but   F   pasta-NOM   enter   sauce-NOM   enter-QT   ecome-if
           'but when the pasta and the sauce are added'

     B6   *nn*   *mata*   *kekkoo* *tasanaito*   *dee*
           F   again   quite   have.to.add   and
           'um...(I) have to add more (salt), and'

     A3   *tamago*   *irete*
           egg   put
           '(You) put in an egg.'
           (Shimojo 2005, 196-197)

In this conversation, in which the topic happened to be food, speaker B describes the pasta dish he made. In (A1), speaker A interrupts to ask questions about the ingredients mentioned before. The interruption puts the main sequence on hold until (A3), where speaker A shifts the conversation back to the main flow of the discourse. Unlike the procedural discourse discussed earlier, the side-sequence in (15) is not initiated with topicalization, but the entities asked about are zero-marked in (A1) and (A2) (the topic-*wa*-phrase in (B4) singles out *bacon* from other ingredients, hence contrastive). In the casual conversation data, postposing and zero marking of arguments are both associated with non-persistent information (Shimojo 2005); therefore, these forms are consistent with the transient nature of a side-sequence which was meant only for clarification. It should be noted that, while what speaker B describes in this segment is essentially a recipe, the type of the discourse in (15) is different from that of the procedural discourse under current analysis. In this conversation, speaker B's making the pasta dish is described as a past event, as indicated by the past tense forms in (A1, B4), and it is not meant to be instructional.

The preceding discussion points to discourse type-based variation in the use of topicalization. In the (non-procedural) conversations, a side-sequence without topicalization is detached from the main sequence. Conversely, in the procedural cooking discourse, the textual cohesion achieved by topicalization connects a side-sequence with the main discourse. This contrast may be ascribed to the rigid structural characteristics of procedural discourse. As discussed earlier, a recipe has an intended structure, and this applies to the spoken instructional discourse as well. The segments of such discourse are connected with each other in parallel and series relationships; therefore, a non-procedural side-sequence is disjointed and does not fit the main procedural text, unless such a sequence is made to fit by being presented as coherent to the main segment. Topicalization as a cohesive device helps meet this requirement. Also, in the spoken cooking discourse examined in this study, it is important to maintain textual cohesion due to the

formal nature of the discourse, which was produced by NHK, Japan's only public broadcaster, known for its conservative and "correct" language use. The level of formality is reflected in the cooking assistants' careful articulation as well as the consistent use of the polite speech style. In such discourse, we expect that side-sequences are presented as relevant, not as a random interruption. For this reason, the topicalization is an effective means because it connects discourse segments which may sound disjoint otherwise.

5 Conclusion

This study presented an analysis of a topic-*wa*-phrase in written recipes and the corresponding spoken instructional discourse. Despite the absence of agentive subjects which are typically associated with topicalization in other types of discourse, we have observed frequent and systematic topicalization of ingredients. In both the written recipes and the spoken discourse, those topicalized are ingredients which are contained in parallel procedures and given substantial procedural descriptions; hence, they are important ingredients for the purpose of the procedural discourse. A topic-*wa*-phrase serves as a parallel cohesive device because the topicalization connects the parallel segments so that they constitute coherent discourse as a whole. The device is also used to introduce a side-sequence which is placed in parallel with the main segment. The globally and locally motivated functions of the topicalization, i.e. presenting important elements and connecting parallel segments respectively, align with previous observations in other types of discourse. Topicalization for important and persistent characters is characteristic of a narrative, and contrasted referents and states of affairs are associated with topicalization in spontaneous discourse.

At the same time, however, the present study has shown discourse type-based variation with respect to how a side-sequence is presented. In the procedural cooking discourse, a side-sequence is connected by topicalization so that the "digression" is presented as part of the coherent discourse. This is analogous to introductions of ingredients in parallel segments, which are connected together to form a coherent procedural text. This contrasts with the previous finding in casual conversations that digressions are detached from a main segment. These findings imply that different discourse types are associated with different priorities, and the speaker's pragmatic intentions are reflected on their choice of referential forms. The study also suggested that differences in communication environments and priorities between written recipes and spoken TV cooking discourse are reflected in the linguistic differences we observed, especially with the elaborate instructions used in the latter.

Overall, topicalization in instructional cooking discourse satisfies two essential requirements to accomplish the goal of procedural discourse: introduction of key ingredients and procedures, and representation of the procedural structure. Although procedural discourse is a genre of its own, it has a narrative-like aspect. Longacre (1983: 38) states "there are plot-like elements in procedural discourse. We may think of the whole procedural discourse as reflecting a struggle to accomplish the goal of discourse, to carry through an activity, or to produce a product". This characterization is valid for a recipe. Key ingredients are like main characters of a narrative, and completion of each procedure is a step toward the goal. At the same time, a recipe starts with parallel procedures for separate ingredients, then combines them, and eventually complete the dish. While both narratives and recipes utilize topicalization, the target of topicalization in recipes is ingredients, not agents, and this is consistent with the goal or activity-focused nature of procedural discourse.

Lastly, one obvious limitation of the study is that this is undoubtedly a small case study based on the limited data set. Although the study was meant to offer qualitative description of the topicalization, the generalizability of the findings needs to be evaluated in future studies, as it may be possible that the present characterization is unique to the particular recipes and cooking discourse examined. The claims would be better supported if they were combined with a quantitative generalization of a large-scale database from a broader range of sources.

Abbreviations

The following glossing abbreviations are used in the Japanese examples: ABL = ablative; ACC = accusative; ADV = adverbial; ALL = allative; ATT = attributive; CL = numeral classifier; COP = copula; DAT = dative; EMPH = emphasis; F = filler; FRG = fragment; GEN = genitive; IMP = imperative; INS = instrumental; IT = interactional element; LK = linker; LOC = locative; NEG = negative; NMZ = nominalizer; NOM = nominative; PRS = presumptive; Q = question; QT = quotative; SE = sentence extender; TOP = topic.

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