WHY AND HOW DO LANGUAGES CHANGE?

HIROZO NAKANO

*Aichi Shukutoku University**

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1. Introduction

Why and how do languages change? This question has occupied linguists for many years and has been approached from various perspectives by linguists of various schools. Attempts to explain reasons or motives for language change have been made for more than a century. The book under review is also a collection of essays making such attempts. On the front page of this volume, which has appeared as a new endeavor in historical linguistics in the 21st century, the editor states that it “brings together an international team of leading figures from different areas of linguistics to re-examine some of the central issues in this field and also to discuss new proposals.” Rephrasing one of the purposes of this book, i.e., to “re-examine some of the central issues in this field,” the editor says in Introduction that “[t]he chapters of the present volume are intended to reflect the areas of language and approaches to language change which are currently topical.” The editor does not mention explicitly what the “currently topical” (and “central”) issues in the field of historical linguistics are, but the contents of the book seem to show what they are and what approaches scholars cur-

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rently tend to take to language change.

In the beginning, historical linguists' main concern was with phonology and morphology, but with the advent of structural linguistics and generative grammar in the 20th century, which has aroused much interest in other levels of language (especially in syntax) among scholars, the scope of historical linguists' interest has widened accordingly. Furthermore, the rise of new approaches, such as typological theory, sociolinguistics, pragmatics, and grammaticalization theory, in the latter half of the 20th century has provided new perspectives on the study of language change. As the editor says, the Contents of the present volume (see below) reflect the recent developments of historical studies promoted by the new grammatical theories and other newly developed areas of linguistic study in recent decades.

The volume contains the following fifteen articles, which are grouped into six parts according to the themes they deal with:

Part I. The Phenomenon of Language Change:

1. On change in 'E-language' (Peter Matthews)
2. Formal and functional motivation for language change (Frederick J. Newmeyer)

Part II. Linguistic Models and Language Change:

3. Metaphors, models and language change (Jean Aitchison)
4. Log(istic) and simplistic S-curves (David Denison)
5. Regular suppletion (Richard Hogg)
6. On not explaining language change: optimality theory and the Great Vowel Shift (April McMahon)

Part III. Grammaticalization:

7. Grammaticalization: cause or effect? (David Lightfoot)
8. From subjectification to intersubjectification (Elizabeth Traugott)

Part IV. The Social Context for Language Change:

9. On the role of the speaker in language change (James Milroy)

Part V. Contact-based Explanations:

10. The quest for the most 'parsimonious' explanations: endogeneity vs. contact revisited (Markku Filppula)
11. Diagnosing prehistoric language contact (Malcolm Ross)
12. The ingenerate motivation of sound change (Gregory K. Iverson and Joseph C. Salmons)

13. How do dialects get the features they have? On the process of new dialect formation (Raymond Hickey)

Part VI. The Typological Perspective:

14. Reconstruction, typology, and reality (Bernard Comrie)
15. Reanalysis and typological change (Raymond Hickey)

This review article is divided into two parts. In the first part (Section 2) I will give a brief summary of the main points of each of these fifteen articles and in the latter part (Section 3) I will discuss two of the problems presented by the articles that I think are important in the current situation of historical linguistics.

2. Summaries

2.1. Theoretical Issues and Models of Language Change

The first two papers in Part I deal with theoretical issues and the next four in Part II are concerned with linguistic models of language change.

The initial article in the volume, Peter Matthews' "On change in E-language" (pp. 7-17), discusses the diachronic relevance of Chomsky's distinction between I-language and E-language. Language is often viewed as having two aspects: *langue* (language) and *parole* (speech), or, in Chomsky's terms, I-language and E-language. I-language (*langue*) refers to the abstract language system of a speech community (or the language system internalized in the brain of a speaker) and E-language (*parole*) to the concrete utterances produced by individual speakers in actual situations (which are externalized tokens of the abstract language system, i.e. I-language). If language can be dichotomized in this way, it is natural to ask whether language change is change in I-language (*langue*) or in E-language (*parole*). This is one of the controversial questions in historical linguistics.

Most recent linguistic theories assume this dichotomy of language, and historical linguistic models based on these theories tend to take a stand in favor of change in I-language (*langue*). As is well known, the most influential among them is the generative model. Matthews' paper questions the assumptions made by the generative model about language change. This model assumes that language acquisition by children is the prime factor in language change and most changes in language take place between different generations of speakers of a language. The generative theory claims that all human beings are endowed with an

innate faculty of acquiring language, which is often called Universal Grammar (UG). This UG is conceived as consisting of two components: universal “principles” that characterize the fundamental structure of language and impose constraints on the possible grammars which the child, the language learner, can construct, and “parameters” which restrict the range of structural variation permitted in natural languages and are fixed by experience. The principles of UG determine the invariant linguistic properties which are innate and need not be acquired, while the parameters define the properties of language that vary cross-linguistically and have to be acquired by experience. Therefore, language acquisition consists in setting these parameters. According to the generative model based on this kind of assumption, language change is theoretically effected by resetting the parameters in language acquisition. This change is, needless to say, change in I-language.

Matthews has doubts about this generativist account of language change based on parameter resetting. If a language changes when the learner of the language sets a parameter differently from its original value, the language is expected to change suddenly and drastically. But he points out that actual linguistic changes observable in the histories of languages are more gradual and less drastic. To illustrate this, he cites inversion constructions in English (e.g., *Nor was I / Then came the floods*). The pattern of *Then came the floods* was normal in the days of a “verb-second” order and so the parameters can be said to have been set accordingly. However, inversions of this kind have come to be rather exceptional (“peripheral” in the terminology of generative grammar) in present-day English. So the setting of the related parameters must be thought to have changed during the period between the days when English allowed the verb-second order and present-day English. If the parameters relating to inversion constructions like *Then came the floods* have been reset, that means that such constructions have vanished from the I-language of English. But they are still not entirely out of use in present-day English, even though they are restricted lexically and stylistically. Matthews comments that “gradual shifts in speech are just what we expect if change is at a level of ‘E-language’ only” (p. 16). He questions the validity of explaining language change only in terms of I-language.

Frederick Newmeyer’s “Formal and functional motivation for language change” (pp. 18–36) also takes up theoretical problems concerning the

study of language change. He deals with a recurring issue in historical studies of language, that is, formal and functional motivation. He explains that formal explanations of language change appeal to mentally represented formal grammars and constraints on grammars, while functional explanations appeal to properties of language users. Typical of formal accounts of language change are those provided by generative theorists. As mentioned above, generativists assume that language change is caused by resetting the parameters in language acquisition. Newmeyer mentions that most functionalists criticize this kind of formal account by claiming that any account of language change that appeals crucially to grammar-internal processes does little more than rearrange the data in more compact form¹ and that in order to explain the proper-

¹ A brief explanation of what the phrase "rearrange the data in more compact form" used in the functionalists' criticism here means may be in order. As a phrase which has the same purport, Givón (1979: 5) uses the phrase "restatement of the facts at a tighter level of generalization" in his criticism of formal accounts. Let us take the case of the development of modal verbs in English as an example for explaining the meaning of the phrase in question. According to Lightfoot (1991), modal verbs in English, which used to be ordinary verbs in the Old English period, lost their ordinary-verb qualities and came to develop the following characteristics during the Middle English period:

- (i) a. These verbs lost their ability to take direct objects.
- b. They became inflectionally distinct after the loss of other preterite-present verbs.
- c. With the loss of the subjunctive mood, the relation between their present and past tenses became non-temporal in certain senses.
- d. They were never followed by the *to* form of the infinitive.

Lightfoot, who attempts a formal (generative) analysis of the development of modal verbs, explains the process of their change from ordinary verbs to auxiliary verbs by assuming a reanalysis whereby these modal verbs, which were formerly categorized as ordinary verbs, came to be categorized as INFL elements (i.e. auxiliary verbs). Lightfoot (1991: 142) explains that the modal verbs gradually acquired the properties shown in (i) during ME, which triggered a reanalysis whereby they came to be recategorized and that the recategorization was almost complete by the sixteenth century. In Lightfoot's account, the recategorization of the modal verbs is attributed to a reanalysis which can be considered to be motivated by the grammatical system. No one, whether a formalist or a functionalist, can deny that English modal verbs have undergone recategorization in the process of their development into auxiliary verbs and that this recategorization has been triggered by such changes in their properties as are shown in (i) above. Therefore, functionalists say that a formalist's 'reanalysis' account of this recategorization is nothing but a restatement (rearrangement) of the facts in more compact form (i.e. in more abstract terms), because saying that the modal verbs were reanalyzed as INFL elements is equivalent to restating

ties of some system, it is necessary to go outside of that system.

Those who take a functional position in explaining language change frequently appeal to the desire of language users to establish an iconic (one-to-one) relationship between form and meaning. Newmeyer cites as an example of such attempts Robin Lakoff's (1972) iconicity-based explanation for general tendencies in the development of the Indo-European languages such as the replacement of case markers by prepositions, the development of periphrastic causatives, and the decreasing percentage of null subject languages. All these changes are regarded as moves toward greater semantic transparency. Changes classified as 'grammaticalization' are also semantically motivated changes and therefore Newmeyer says that they are more typically accorded a functional explanation than a formal one. However, he points out that the problem with functional explanation is that the number of functional factors which cause a particular language change is usually not one, but many, so that functional explanations can be vacuous because functional factors in that language change, if there are more than one, may operate to produce opposite consequences.

In the first of the four papers in Part II, "Metaphors, models and language change" (pp. 39–53), Jean Aitchison points out that theoretical models are formulated as metaphors, such as *conduit*, *tree*, *waves*, *game*, *chain*, *plants*, *building*, and *dominator*, without verifying the reality of language change itself. She shows in her paper "how linguists' use of metaphors has misled them, and how in order to move forward, we need to be aware not only of the ways in which we have been misled, but also the deeper causes of these false trails" (p. 50).

The second paper in Part II, David Denison's "Log(ist)ic and simplistic S-curves," (pp. 54–70) questions the validity of S-curves for describing change, on the basis of the historical developments of syntactic constructions in English such as progressive passive, prepositional passive and periphrastic *do*. The "S-curve" here is a graph in the form of

the complex process of change leading to their recategorization in more concise formal terms. Functionalists argue that language change should be explained not on the basis of grammar-internal factors, but on the basis of grammar-external ones. In the case of English modal verbs, they would claim that what must be explained about the development of these verbs is not just the fact of their being recategorized (or reanalyzed), but why and how their property changes shown in (i) came about and these changes led to their recategorization.

an S-shaped curve which represents the rate of diffusion of language change. The S-curve graph, which is intended to show the progress of a change for a single speaker or for the whole speech community, represents the hypothesis that changes begin slowly, then gradually build up speed, and after that slow down again. The S-curve graph is normally plotted with “percentage” (of the occurrences of a new form) on the vertical axis and “time” on the horizontal axis. Denison raises questions about the S-curve model by claiming that its validity can be greatly affected when the percentage and the time concerning a particular change are rigorously re-examined. He comments in the concluding remark that “[g]iven too the simplistic picture of variation it sometimes reflects and (requires), the S-curve should not be seized on too readily as *the* general shape of language change” (p. 68).

The third article in Part II, Richard Hogg’s “Regular suppletion” (pp. 71–81), looks at suppletion, especially with regard to established changes in the history of English that are seen in the variant forms of *bad*, *go*, and *be*. He suggests that, contrary to popular belief, suppletion may arise in preference to regularization and can even develop into regular morphology. The case of *went* is an example of the preference of suppletion over regularity. The preterite singular form of *gān* (the old form of *go*) was *ēode* and this form was replaced by the suppletive form *went* by about 1500. But when this suppletion occurred, there was another preterite form in the northern dialects, *gaid* or *gaed*. Obviously, a form such as *gaed* is a new preterite formation made by adding the regular dental suffix to the present tense form. However, this apparent regular preterite failed to replace *ēode* in most dialects of English and gave way to the suppletive form *went* in that replacement. An example of the development of suppletion into regular morphology is the case of *syndon*, the present indicative plural form of the OE verb *bēon* (= ‘be’). According to Hogg, *syndon* was formed by adding the plural ending *-on* to *synd* (or *synt*), which was itself a suppletive form to the first-person-singular present of *bēon*, and therefore, this word can be said to be an example produced through the regular formation of adding a plural ending to a root which happens to be a suppletive form (*synd* in this case).

In the fourth paper in Part II, “On not explaining language change: Optimality Theory and the Great Vowel Shift” (pp. 82–96), April McMahon treats the English Great Vowel Shift and points out several limitations of Optimality Theory in explaining this major shift, and

derives from this its inadequacies for explaining phonological change generally. On Optimality Theory, she comments that practitioners of the theory “often simply assume that their model is preferable to the alternatives, without defending this position: and the best defences often seem inadequate, since they are predicated on a form of the model without rules, additional types of constraint interaction, and the other formal mechanisms which are nonetheless frequently invoked in OT analyses” (p. 95).

2.2. Grammaticalization

Two studies in Part III deal with issues concerning grammaticalization. Grammaticalization is a phenomenon where an independent word changes to the status of a grammatical element: words from major lexical categories, such as nouns, verbs and adjectives, become minor, grammatical categories such as prepositions, adverbs and auxiliaries, which in turn may be further grammaticalized into affixes. This categorical change is often accompanied by a reduction in phonological form and a ‘bleaching’ of meaning. Grammaticalization is often regarded as a tendency in language change which is quite general and unidirectional and as an explanatory force (like a ‘drift’) rather than being something which requires explanation. David Lightfoot’s “Grammaticalization: cause or effect?” (pp. 99–123) sets forth an argument against this kind of view about grammaticalization. He argues that grammaticalization is not an explanatory force, but is something brought about by some local causes. He takes as an example of grammaticalization the case of modal auxiliary verbs in English and in order to prove his argument, he tries to offer some local causes for the various changes affecting the English modal auxiliaries without invoking any general tendency to grammaticalize as an explanatory force. Furthermore, Lightfoot shows that the local causes which are responsible for the category change seen in the case of English modal auxiliaries are all morphological ones, which, he claims, suggests that category changes may result from morphological changes, but not from general historical tendencies.

In contrast, the second paper in Part III, Elizabeth Closs Traugott’s “From subjectification to intersubjectification” (pp. 124–139), expresses the view that there is a general unidirectional tendency in certain semantic and morphosyntactic changes which are typical examples of grammaticalization. This paper takes up the problem of unidirectionality as its main topic of discussion and argues that there is a strong uni-

directional tendency observed in particular sets of semantic changes. Traugott's discussion in this paper focuses on the semantic development from subjectification to intersubjectification witnessed cross-linguistically in certain groups of words and constructions. According to Traugott, "subjectification is the mechanism whereby meanings come over time to encode or externalize the SP/W's [= speaker/writer's] perspectives and attitudes as constrained by the communicative world of the speech event, rather than by the so-called 'real-world' characteristics of the event or situation referred to" (p. 126) and "intersubjectification is the semasiological process whereby meanings come over time to encode or externalize implicatures regarding SP/W's attention to the 'self' of AD/R [=addressee/reader] in both an epistemic and a social sense" (pp. 129–130). One example which typifies this change from subjectification to intersubjectification is the development of *let's*. Traugott points out that this expression has developed along the lines of *Let us go, will you*, > *Let's go, shall we*, > *Let's take our pills now, Roger*. *Let's*, which has developed from the imperative *let us* (meaning 'allow us'), has come to be used as a hortative (meaning 'I propose') as in *Let's go, shall we*, and further to be used as a 'mitigator/marker of "care-giver register"' (p. 130) as in *Let's take our pills now, Roger*. The uncontracted *let us* (= 'allow us') describes the 'real-world' characteristics of the event or situation referred to and therefore has a 'nonsubjective' meaning. On the other hand, the contracted *let's* in the hortatory sense expresses SP's attitude toward the event the sentence refers to (note that, in the case of the hortative sentence, to express one's attitude toward the event referred to is to propose that the event be brought about), and the *let's* used as a mitigator or marker of the illocutionary force of a care-giver's utterance expresses SP's attention to or care for AD. Therefore, according to Traugott's definition, the hortative use of *let's* is "subjective" and the force-mitigator/marker use of *let's* is "intersubjective." Citing a number of English as well as Japanese examples which have followed the same course of development as *let's* to support her theory, Traugott concludes that the meanings of words or constructions tend to develop along the path from nonsubjective to subjective, and then to intersubjective and that the reverse development (i.e. intersubjective > subjective > nonsubjective) is not likely.

Traugott observes that what contributes to the development from subjectification to intersubjectification is the speaker-hearer situation. Along the same lines, James Milroy's paper in Part IV, "On the role of

the speaker in language change" (pp. 143–157), stresses the role that the speaker plays in language change. Milroy points out that in the tradition in historical linguistics, it has been assumed that languages change within themselves as part of their nature as languages and external factors such as speakers/listeners and societies tend to be seen as secondary and, sometimes, as irrelevant, in language change. He questions this kind of endogenous hypothesis and comments critically that "the idea that language changes independently of speakers and society is, it seems, an inference based on comparison of data—not on direct observation or identification of change" (p. 145). In order to prove his point, he takes the case of monophthongization of /ai/ in AAVE (African American Vernacular English) in Detroit as an example of socially triggered change. The monophthongization of /ai/, which is a well-known characteristic of Southern American English speech, occurs when /ai/ is in voiced contexts in both white and black speech. However, the diphthong has recently come to be monophthongized even before voiceless obstruents as in *right* and *life* among southern white speakers, though this is not generally found among southern black speakers. According to Milroy, there is clear evidence that inner-city Detroit AAVE speakers, in contrast to southern AAVE speakers, are adopting the monophthong that they have hitherto resisted in voiceless obstruent environments. This means that Detroit AAVE speakers are discarding the symbolic differences that were socially functional in the south in differentiation from white southerners, which fact suggests that what is important now for Detroit AAVE speakers who are monophthongizing is no longer differentiation from southern white groups, but differentiation from northern speakers, who don't monophthongize /ai/ in the contexts in question. Milroy concludes that the reason for this change toward monophthongization is ideological, and not language-internal, because the change can be thought to have been caused by socially based identity factors such as the attitude of Detroit AAVE speakers who want to preserve their identity by differentiating themselves from northern speakers.

2.3. Contact-based Explanations

The four papers in Part V are concerned with contact-based explanations. The first one, Markku Filppula's "The quest for the most 'parsimonious' explanations: endogeny vs. contact revisited" (pp. 161–173), discusses the controversial problem of endogeny vs. language contact.

The view which has so far been influential in historical linguistics is that whenever more than one origin can be assumed for a given change, endogeny is to be preferred to language contact because it provides the most parsimonious explanations for linguistic innovations. Filppula raises questions about this view on the basis of linguistic facts concerning the Celtic-English contacts. Although it is commonly held that English owes very little to the Celtic languages at the level of grammar, he points out that there are some grammatical constructions in English which seem to be best explained as borrowings from Celtic and, taking up two among such constructions in this paper, he tries to examine whether he can prove that they are better explained in terms of external factors (language contact) than internal factors (endogeny). The two grammatical forms Filppula cites are the *be* perfect and the 'absolute' use of reflexive pronouns in Hiberno-English and some other varieties of English spoken in the formerly Celtic speaking areas, and after examining various aspects of the usages of *be* perfect and absolute reflexives in these varieties of English, he concludes that endogeny does not suffice to account for all the problematic phenomena concerning these grammatical constructions and the case for contact influence remains strong.

Malcolm Ross' "Diagnosing prehistoric language contact" (pp. 174-198) speculates on the role that prehistoric language contact played in the changes seen in Papuan languages. In this article Ross attempts to provide some means of diagnosing contact, on the assumption that types of contact determine what kind of change it brings about. He also tries to distinguish several types of 'speech community' that contact can be thought to produce and claims that different types of speech community bring about different types of contact-based change.

In the third paper in Part V, "The ingenerate motivation of sound change" (pp. 199-212), Gregory K. Iverson and Joseph C. Salmons investigate the interplay between phonetic (coarticulatory) and phonological (structural) factors surrounding two of the well-known changes in Germanic, umlaut and the High German Consonant Shift. They examine the development of these two apparently unrelated sound changes and show that these changes can be seen as complex phonological ones that begin as simple coarticulatory and prosodic processes and emerge as overt phonological constructs, which, they conclude, indicates that structure eventually comes to override the inherently coarticulatory grounding of phonetic naturalness.

The fourth paper in Part V, Raymond Hickey's "How do dialects get the features they have? On the process of new dialect formation" (pp. 213–239) discusses the process of new dialect formation, examining the formation of New Zealand English as a case study. The term "new dialect formation" refers to a linguistic situation where a mixture of dialects produces a single new dialect which is different from all inputs. According to Hickey, new dialect formation took place in New Zealand in the following way: speakers from different regions of the British Isles immigrated to the country and produced a mixture of dialects, in the process of which, over just a few generations, a non-regional variety arose which was supraregional, i.e., no longer typical of any regional variety of English that the immigrants originally spoke. In other words, the new dialect formation which occurred in New Zealand involves what Hickey calls "supraregionalization," which is a process whereby dialect speakers adopt features of a non-regional variety and by a process of lexical diffusion replace vernacular pronunciations or grammatical structures more and more so that the original dialect loses its strongly local characteristics. He claims that if the process of this kind can be assumed to be involved in the formation of New Zealand English, that would help to account for the relative lack of regional variation in this variety of English.

2.4. Typological Changes

The two contributions in the last Part discuss typological changes. In the first article in Part VI, "Reconstruction, typology and reality" (pp. 243–257), Bernard Comrie considers the question of the reliability of linguistic reconstruction as a method of reconstructing the linguistic past and in this connection discusses the validity of the uniformitarian hypothesis.² Comrie first points out that, in the case of languages with

² This hypothesis, which originated in geology, is often referred to when problems concerning linguistic reconstruction are discussed. The assumption of uniformitarianism is said to be the dominant hypothesis in typological work today. Newmeyer (1998: 322) describes the uniformitarian hypothesis in typological terms as the assumption that "the typological universals discovered in contemporary languages should also apply to ancient reconstructed languages." This means that when one tries to decide, for example, the basic order of sentence elements (S, O, V) in a reconstructed language, one can rely on the relevant typological universal if one adopts the uniformitarian hypothesis.

complexities such as complex morphology, it is possible for the method of linguistic reconstruction to reconstruct an earlier stage where these complexities were absent and this can be seen as a violation of the uniformitarian hypothesis. A simple-minded conclusion from this would be that the method of linguistic reconstruction is unreliable from the uniformitarian point of view. However, he further points out that, even in attested language change, it is not the case that the morphological or other typology of a language remains constant and there are actually several languages that have radically changed their typology. In order to resolve this conflict between actual facts of language change and what the uniformitarian hypothesis constrains, Comrie claims that it is necessary to reconsider the hypothesis in relation to the original meaning which the term 'uniformitarian hypothesis' had when it was first proposed in geology. In geology, the uniformitarian hypothesis assumes that the same processes as those which can be observed as ongoing during recorded history also characterized the earth's prehistory. This means that what is constrained by the uniformitarian hypothesis in geology is the set of processes that have formed the earth, not the set of states that are separated by these processes; in other words the typological consistency implied by the uniformitarian hypothesis in geology is a typological consistency of processes, not a typological consistency of states. If this historically more appropriate concept of uniformitarianism can be applied to linguistic reconstruction, Comrie concludes that it is arguably a valid exercise to reconstruct stages in the development of human language typologically different from attested human languages.

Raymond Hickey's article "Reanalysis and typological changes" (pp. 258-278) examines the typological change in morphology which took place in Irish and which marks it off from other Celtic languages and shows how language learners' reanalysis has induced this typological change. Hickey explains that the change resulted from the rise of a system of initial mutations and of functional palatalization in Irish which can be presumed to have been brought about by language learners' reanalysis triggered by the demise of inflections inherited from earlier stages of Celtic. Palatalization is a natural assimilation phenomenon whereby the feature of highness spreads from a vowel to a consonant, usually a preceding one, while initial mutation is a change in the manner and place of articulation of a consonant at the beginning of a word (examples of this mutation are phenomena such as lenition and nasalization). According to Hickey, in the history of Irish an inflection-

al high front vowel had the effect of palatalizing the preceding consonant by articulatory assimilation. At a later stage, the endings were lost with palatalized consonants remaining as their reflex. After this stage there emerged a phonemic contrast between palatalized and non-palatalized consonants as a result of reanalysis of an attendant phonetic effect of an inflection (i.e. phonetic palatalization) as the marker of a certain grammatical category, for instance, of genitive singular or nominative plural in the case of Irish. Hickey likewise explains the rise of a system of initial mutation indicating grammatical categories in terms of language learners' reanalysis. The phonetic weakening in Irish, which led to the demise of inherited inflections, not only affected the ends of words but also reduced the beginnings of words, and this originally phonetic process came to be interpreted by language learners as systemic so that what indicates grammatical categories changed from suffixal inflection to initial mutation. Thus, Hickey concludes, the change in Irish morphology brought about by language learners' reanalysis can be viewed as a good case of the shift from synthetic to analytic type.

3. Discussion

3.1. Two Views about Language Change

Before entering into discussions, I would like to explain why I have titled this review article "Why and How Do Languages Change?" The book under review is titled *Motives for Language Change*, and this title naturally suggests that the main theme of the book is what causes or motivates language change—in other words, *why* languages change. Many papers included in this book deal with this theme, but there are some which discuss mainly the modes or directions of language change, that is, *how* languages change. For example, Denison's article, which discusses whether the S-curve should be taken as the general graph of language change, and Hogg's, which focuses on the possibility of the existence of regular suppletion, mainly treat actual facts of change without any explicit reference to what motivates the relevant change. Furthermore, there are some papers in this volume which treat linguistic changes not only from the viewpoint of *how* they occur, but from that of *why* they take place, because these two aspects cannot be treated separately in the case of the subject matters the papers treat.

Returning to the main theme of this book, namely, "what causes or

motivates language change,” there are, roughly speaking, two opposing views on this question. One view is that languages change by themselves, that is, languages change owing to their internal or endogenous factors. The other view is that language does not exist independent of its speakers and environments and that language change is caused by factors external to language which relate to its social or physical setting.

What is closely related to these two opposing ideas is the two competing schools of thought on language, namely, the formalist and the functionalist. In his article in this volume, Newmeyer discusses the opposing views of the two camps about language change. As is known, formalists hold that language is characterized by an abstract set of rules independent of language users and that when a language changes, it is these rules that change. In contrast, functionalists believe that language change is not mere rule change, but that it is caused by factors relating to language users. Accordingly, formalists’ explanations for language change can be said to be based on internal factors, while functionalists’ explanations tend to rely on external factors. (As Newmeyer (1998) points out, there are some functional explanations which can be regarded as being based on internal factors. We will discuss this lack of correspondence between explanations and factors in more detail below.)

Representative of formal (or internal) explanations are those given by generativists. An essential part of the generativists’ view is that language rules change independently of other linguistic and extralinguistic factors (e.g. those relating to language users or speech communities). As Newmeyer mentions in his paper, the generativists’ account of language change based on this view is criticized by the functionalist camp as insufficient because it does little more than reformulate some known facts using a new technical framework and does not really bring any new insights into the mechanisms of language change. Furthermore, the generativists’ hypothesis that language change is caused by resetting the parameters in language acquisition is called into question, because there is some empirical evidence that seems to show that language change is not restricted to language acquisition, but may also occur with adult speakers.

Functionalists, on the other hand, explain that language change occurs owing to factors relating to the interaction between language structure and language users—specifically, factors such as ones relating to the language user’s physiology and psychology and structural ones pertain-

ing to structural pressures within the linguistic system. Characterizing functional explanations, Schendl (2001) notes that “in functional thinking, linguistic systems are seen as having a natural tendency to regulate themselves, and linguistic change as basically therapeutic in that it makes systems more symmetrical and balanced, and therefore simpler” (p. 68). Functional explanations thus characterized are also not free from criticism. As mentioned above in the summary of Newmeyer’s article, functional factors in language change, if there are more than one, may operate to produce opposite consequences, so that if one factor brings about a therapeutic change in one part of the grammar, another factor may create imbalance in some other part. Furthermore, Schendl (2001: 69) points out that a basic problem with the functionalists’ therapeutic hypothesis is how the individual speaker or the speech community as a whole could know about the asymmetry of systems and act accordingly.

It is clear that language change cannot be fully understood without knowledge of the social and physical circumstances in which it takes place. There has been growing recognition of this fact among linguists in recent years and, with the developments of sociolinguistics and pragmatics, the second view that linguistic changes are motivated by external factors has been gaining an influential position in historical linguistics. Milroy’s paper in Part IV and those in Part V (Contact-based Explanations) are attempts to substantiate this view. Sociolinguists hold that change in language is change in linguistic systems and yet processes of systemic change are detectable by comparing communities of speakers through study of innovation and diffusion of changes in speaker/listener interaction. Milroy, who supports this sociolinguistic view, asserts that “speaker/listeners play a vital role in language change, and that language changes in response to changes in external conditions” (p. 146).

The primary reason why sociolinguists attach importance to external factors in the study of language change is that they are most concerned with solving the *actuation problem*, because they regard the problem as the crucial question to the study of language change. As Weinreich et al. (1968: 102) put it, the actuation problem is “Why do changes in a structural feature take place in a particular language at a given time, but not in other languages with the same feature, or in the same language at other times?” In the sociolinguistic study of language change, the distinction between *innovation* and *change* is considered important in

approaching the actuation problem. In his paper (this volume) (pp. 147–148), Milroy uses these two notions to explain the problem. The point of his explanation is this: speaker-innovations take place repeatedly in speaker usage at any time largely below the level of conscious speaker awareness, but not all innovations lead to change; some may remain idiolectal features of the innovator; others may reach the speaker's immediate community but go no further; only at a particular time will some innovations spread into other communities via some mediator who is connected to all the networks involved, thus leading to language change.

It is true that internal factors of change cannot provide an explanation for the ways in which changes are diffused from one group of speakers to another, nor even for how an innovation crystallizes into a change within an innovating group, and therefore, as sociolinguists say, internal (endogenous) explanations can provide no solutions to the actuation problem. However, Milroy himself, who stresses the importance of the speaker/listener's role in language change, remarks that "no sociolinguist, as far as I know, has ever suggested that we can ignore internal linguistic constraints in the study of language change or that language change is merely speaker change" (p. 146). McMahon (1994) also comments in regard to the actuation problem that "speaker-innovation may start a change, but a chain reaction may then begin, with subsequent steps being motivated by the system" (p. 249). To this comment, she adds that she maintains the Structuralist notions of the structure and function of linguistic systems as influences on change.

Note that McMahon's comment points out an important fact about causal factors of language change. Although there are some aspects of language change (e.g. actuation of change) which can only be explained by external factors, McMahon's comment suggests that there are cases in which not only external factors but also internal ones are involved. Let us consider here the type of change seen in what is called a "semantic field," which can be considered to be an instance of the change mentioned in McMahon's comment, that is, the change where speaker-innovation is followed by a chain reaction motivated by the linguistic system. Lehrer (1974: Ch. 6) discusses the semantic changes seen in semantic fields and shows that there are cases where the structure of a semantic field plays a role in semantic change. One of these cases is the semantic changes relating to the field formed by adjectives that describe physical temperature, such as *hot*, *warm*, *cool* and *cold*.

These English adjectives forming a 'temperature' field denote varying degrees in the temperature scale and are often treated as pairs of antonyms (*hot* versus *cold* and *warm* versus *cool*). Lehrer calls the meanings that these adjectives express in the description of temperature *static meanings*. Since *hot*, *warm*, *cool* and *cold* belong to one semantic field, their static meanings naturally bear a certain relationship to one another in isolation. The fact to be noted about these words is that when one of them loses its original static meaning and undergoes a metaphorical extension, the others tend to change in a parallel fashion, that is, they tend to acquire new meanings by virtue of the relationship that they originally have as members of the "temperature" field. Thus, *hot* and *cold* are opposites in describing temperature, so they are also opposites in their metaphorical extension in phrases such as *hot news* (news that is current or interesting) versus *cold news* (news that has become stale or dull). When metaphorically extended, *hot* is paired with 'fresh' or 'interesting,' and therefore the antonym of *hot*, i.e. *cold*, is paired with the antonyms of 'fresh' and 'interesting,' namely, 'stale' and 'uninteresting.' According to Lehrer, since *cool* and *warm* retain their normal positions on the scale, a *cool news item* is used to mean one that is moderately stale. Similarly, *warm war* might be used to talk about encounters involving minor skirmishes, raids, or guerilla activities, in contrast to *hot war* (open fighting involving armies, etc.) or *cold war* (no fighting). It is to be noticed that, as Lehrer points out, this meaning for *warm* does not exist in isolation—it exists only indirectly, by virtue of the direct association of *hot* and 'fighting' and the patterning of *warm* with respect to *hot* and *cold*. The same is true of the meanings of these adjectives when used to describe a person's character or emotion. A person who is angry or sexually excited is said to be *hot*, while a person who does not get angry in a situation in which (s)he is expected to be is said to be *cool*. Similarly, a person who is sexually unexcited in a situation in which (s)he is expected to be excited can be described as *cold*. It is clear that *cool* and *cold* have acquired these non-static meanings by virtue of their relationship with *hot* in the "temperature" field and their metaphorical extension triggered by the metaphorical meanings of *hot*, i.e. 'angry' and 'excited.'

From these facts about the temperature adjectives and similar data concerning other semantic fields, Lehrer (1974: 112) concludes that when one word in a semantic field has been transferred to a new field, the other words in the field are available for extension to that new field

by virtue of their association with the first word and the words will retain the same relationship to one another in the new field as they did in old fields: antonyms will remain antonyms, synonyms will remain synonyms, etc. Thus, the changes arising in connection with semantic fields are no doubt examples of language change where speaker-innovation is followed by a chain reaction motivated by the linguistic system. Now, what types of causal factors are involved in these changes? Clearly, in these changes the process in which the structure of a semantic field affects the meaning of a member of the field can be said to be triggered by (language-)internal factors. Then, what kind of factor is involved in the stage of speaker-innovation preceding the semantic change in a semantic field? In the case of the semantic change of a word belonging to a semantic field, an innovation is a metaphorical extension of the meaning of the word. When a speaker innovates the meaning of *hot*, (s)he metaphorically extends the original temperature meaning of the word.

This raises a question of whether metaphorical extensions are externally or internally motivated. As to metaphorical extensions, Bybee and Pagliuca (1985: 75) say that "human language users have a natural propensity for making metaphorical extensions," regarding language users' cognitive property as the source of metaphorical extensions. Notice here Newmeyer's following characterization of formal and functional explanations: "Formal explanations are those which appeal to mentally represented formal grammars and constraints on those grammars: functional explanations are those that appeal to properties of language users." (Newmeyer (this volume: 32)) According to this characterization, explanations appealing to language users' properties are *functional*. Functional explanations are in most cases *external* explanations, though, according to Newmeyer (1998), there are some cases where functional explanations depend on internal factors and therefore the extensions of 'functional explanation' and 'external explanation' are not completely identical. However, as to the cognitive property of language users, Newmeyer admits that "(a)n explanation of some grammatical property on the basis of, say, a cognitive disposition toward iconic representations is certainly external, though there is nothing self-evidently 'functional' about it." (Newmeyer (1998: 96)) What Newmeyer describes as "a cognitive disposition toward iconic representations" here is a part of the cognitive property of language users and no doubt Newmeyer's explanation in this quotation also applies to what Bybee

and Pagliuca describe as “a natural propensity for making metaphorical extensions.” It is clear that Newmeyer’s distinction between ‘internal’ and ‘external’ factors depends on whether they are language- (or grammar-) internal or not. Therefore, according to his distinction, factors which are not language- (or grammar-)internal, such as those relating to language users’ cognitive disposition, are external. If cognitively based factors are thus external, that means that the speaker-innovation (i.e. metaphorical extension) which starts semantic change in a semantic field is externally motivated.

This in turn means that, when considered as a whole, semantic change in a semantic field like that of temperature adjectives in English is externally motivated in its initial stage of speaker-innovation and is later further promoted by the (language-)internal motivation derived from the so-called ‘structural pressure’ of the semantic field. It is thus undeniable that different types of factors (language-internal and external) are involved in the sort of semantic change discussed above. This situation does not seem to be limited to the case of semantic change in a semantic field. Southworth and Daswani (1974: 289) comment on the relationship between linguistic change and its background factors that “[a]ny linguistic change, when viewed in its entirety, appears to be a complex response to a variety of factors.” I think that what they intend to say in this comment is right. It would be rather meaningless to argue over whether a particular language change is internally or externally motivated, when the entire process of the change is at issue.

3.2. Unidirectionality

Unidirectionality is currently one of the most controversial topics among historical linguists. This is because it is a notion closely related to grammaticalization, which is itself a big topic that has been attracting historical linguists’ growing interest in recent years. In Part III of this volume, two contributors discuss this topic in relation to grammaticalization. As I mentioned in §2.2 above, Lightfoot sets forth an argument against the view that the unidirectionality of change is a universal tendency that accounts for all grammaticalization processes, while Traugott argues for the existence of a general unidirectional tendency in many examples of grammaticalization. Now I want to consider here the notion of unidirectionality, especially that discussed by Traugott’s paper (this volume). As mentioned in §2.2 Traugott claims that the meanings of words or constructions tend to develop along the path from

nonsubjective to subjective, and then to intersubjective and that the reverse development (i.e. intersubjective > subjective > nonsubjective) is not likely. Furthermore, her hypothesis is that “for any lexeme L, intersubjectification is historically later than and arises out of subjectification” (p. 130). Thus, in her view, intersubjectification depends crucially on subjectification. For ease of reference, her definitions of subjectification and intersubjectification are repeated here: “subjectification is the mechanism whereby meanings come over time to encode or externalize the SP/W’s perspectives and attitudes as constrained by the communicative world of the speech event, rather than by the so-called ‘real-world’ characteristics of the event or situation referred to” (p. 126) and “intersubjectification is the semasiological process whereby meanings come over time to encode or externalize implicatures regarding SP/W’s attention to the ‘self’ of AD/R in both an epistemic and a social sense” (pp. 129–130). As evidence for the unidirectional development from subjectification to intersubjectification, Traugott cites several discourse markers that serve the function of hedges, such as *actually*, *in fact*, and *well* and the Japanese discourse marker *sate*, besides the above-mentioned *let*’s. According to her, the development of *actually*, for example, is ‘effectively’ > ‘adversative’ > ‘reinforcer of prior utterance’ > ‘hedge.’ As Traugott’s paper shows, the status of ‘hedge’ is in most cases the end-point of the process of intersubjectification. Therefore, I want to examine the validity of her hypothesis of unidirectionality of semantic change by looking at the historical developments of some hedges.

It is true that many words and phrases which can function as hedges in present-day English have originated in ones with nonsubjective meaning (e.g. manner adverbs) and have acquired the function of hedge after passing through the process of subjectification. In addition to the examples given by Traugott, modal adverbs like *perhaps*, *maybe*, *certainly*, *surely* and *definitely* can be regarded as examples that support her unidirectionality hypothesis. These adverbs started as nonsubjective expressions (with the exception of *maybe*, which has derived from the construction *it may be that* ... expressing epistemic modality from the beginning) and later developed their epistemic (i.e. subjective) use, and are still used as epistemic adverbs which express the speaker’s subjective judgment. Besides, in present-day English they can be used as hedges and boosters which serve as intersubjective expressions as in:

- (1) a. You don’t look well—*perhaps* you should go to the doc-

- tor. (LDOCE)
- b. *Perhaps* you can explain what went wrong? (ibid.)
 - c. *Maybe* we should call a doctor. (MED)
 - d. *Maybe* someone could explain to me what's going on around here? (ibid.)
- (2) a. May I see your passport, Mr. Scott?—*Certainly*.
- b. Will you excuse me just a second?—*Surely*.
 - c. So you wish to return to your home?—*Definitely*.

Each sentence in (1), when uttered, performs some speech act (request, suggestion or advice) and here *perhaps* and *maybe* are used to mitigate its illocutionary force so as to be polite to the addressee. Thus both *perhaps* and *maybe* in these examples are speech act modifiers which perform some “intersubjective” functions related to the speaker’s politeness strategy toward the addressee. In (2) the adverbs serve to reinforce or emphasize the force of the illocution the speaker performs as an answer to his addressee’s request or question, thus expressing his ready consent to that request or question. The functions of these adverbs, too, can be said to be intersubjective.

Thus, there seems to be enough evidence which supports Traugott’s unidirectionality hypothesis. However, when considered from the viewpoint of the “why and how” question of language change, it is clear that the hypothesis does not *explain why* words and phrases tend to change unidirectionally along the path of nonsubjective > subjective > intersubjective. The hypothesis only describes in what way lexical meanings tend to change over time and does not explain what causes such semantic changes. Needless to say, languages change when they are used in speech situations. Therefore, it seems to me that in order to explain language change adequately it is necessary to closely analyze the speech situation involving the speaker and the hearer and discover the relevant factors. One important factor concerning the speech situation that seems to cause language change is the fact that when people carry out verbal communication, they use not only linguistic expressions which describe the outside-world situation, but also metalinguistic or “metapragmatic” expressions which describe the speech situation where the verbal communication takes place. What is especially important here is the “metapragmatic” use of language, i.e. the use of language to gloss the pragmatic function of (parts of) an utterance. Metapragmatic expressions are used to guide the hearer’s pragmatic interpretation of an utterance, especially of the speaker’s attitudes towards or perspectives

If subjectification and intersubjectification are thus subtypes of pragmaticalization, it follows that there may be other types of pragmaticalization and that there arises a possibility that, contrary to Traugott's hypothesis, nonsubjective words and phrases may change directly into intersubjective expressions without passing through the process of subjectification. To see whether there is the latter possibility, let us look at the semantic development of the so-called "boosters." Boosters are linguistic expressions which boost or intensify the illocutionary force of an utterance in which they are used and they function as reinforcers of positive politeness expressions in speech acts such as agreeing, admiring and reassuring. Examples are the adverbs in the sentences in (2) given above and those in the following:

- Since boosters contribute to positive politeness strategies, it is clear that they are intersubjective expressions. Consider here the semantic development of the phrase *by all means*. The *OED* states that this phrase has the following three meanings:

- (4) *by all (manner of) means*: (a) in every possible way; (b) at any cost, without fail; (c) used to emphasize a permission, request, or injunction, = 'certainly'. (OED s.v. *mean* n².14)

Of the three meanings the *OED* gives, (a) is clearly a nonsubjective meaning and (c) an intersubjective meaning (i.e. the meaning as a booster). (b) seems to be an in-between meaning. Is (b) a subjective meaning? If it is so, Traugott's hypothesis applies to this case correctly. If it is not so, this case becomes a counterexample to her hypothesis. Examining the contexts where the phrase *by all (manner of) means* can have meaning (b), we find that it can have this meaning only when it is used in utterances performing speech acts of the directive type as in (5).

- (5) a. Let him come *by all (manner of) means* if he'd like to.
 b. Tell me about it, *by all means*.
- (6) He tried to come *by all (manner of) means* because he wanted to.

In sentences like (6) which describe mere states of affairs, the phrase is interpreted as expressing meaning (a). If meaning (b) is thus limited to the context where the phrase is used in utterances of the directive type, can this meaning be regarded as subjective? The answer is both yes and no, because this meaning is not just subjective, but intersubjective as well. The phrase *by all (manner of) means* used in this context serves to emphasize the speaker's suggestion to the addressee and therefore the phrase can be said to encode the speaker's attitude towards the addressee in verbal interaction. The same thing can be said about the *just* in (3a). *Just* can be used both as a hedge and as a booster.

- (7) It's nothing serious.—*just* a small cut. (LDOCE)

The *just* in (7) is used as a hedge, while the *just* in (3a) as a booster. According to the *OED* and other English dictionaries, *just*, which originated in the adjective *just*, has developed its meanings from 'exactly' to 'only' and then to its hedge and booster meanings. The *just* in the hedge use has developed its meaning just as Traugott's hypothesis predicts. But the booster meaning of *just* seems to have arisen directly from the original meaning 'exactly.'

4. Concluding Remarks

I have discussed the two currently controversial issues in historical linguistics, namely, the issue of internal and external motivations and that of unidirectionality. As to the first issue, I have shown that the distinction between internal and external motivations is very subtle and there are some cases of language change in which the distinction is not

significant in the explanation of their causes. As to the second problem, I have demonstrated that, though Traugott's hypothesis works effectively in the explanation of most cases of meaning changes, there are some cases which the hypothesis does not explain adequately. I have also suggested that in order to explain this kind of language change adequately it is necessary to closely analyze the speech situation involving the speaker and the hearer and discover the relevant factors.

REFERENCES

- Aijmer, Karin (2002) *English Discourse Particles*, John Benjamins, Amsterdam and Philadelphia.
- Bauer, Laurie (1994) *Watching English Change*, Longman, London and New York.
- Beard, Adrian (2004) *Language Change*, Routledge, London and New York.
- Bybee, Joan L. and William Pagliuca (1985) "Cross-linguistic Comparison and the Development of Grammatical Meaning," *Historical Semantics and Historical Word Formation*, ed. by Jack Fisiak, 59–83, Mouton de Gruyter, Berlin.
- Givón, Talmy (1979) *On Understanding Grammar*, Academic Press, New York.
- Grundy, Peter (2000) *Doing Pragmatics*, 2nd ed., Arnold, London.
- Holmes, Janet (1995) *Women, Men and Politeness*, Longman, London and New York.
- Lakoff, Robin T. (1972) "Another Look at Drift," *Linguistic Change and Generative Theory*, ed. by Robert P. Stockwell and R. K. S. Macaulay, 172–198, Indiana University Press, Bloomington, IN.
- Lehrer, Adrienne (1974) *Semantic Fields and Lexical Structure*, North-Holland, Amsterdam.
- Lightfoot, David (1991) *How to Set Parameters: Arguments from Language Change*, MIT Press, Cambridge, MA.
- McMahon, April M.S. (1994) *Understanding Language Change*, Cambridge University Press, Cambridge.
- Newmeyer, Frederick J. (1998) *Language Form and Language Function*, MIT Press, Cambridge, MA.
- Schendl, Herbert (2001) *Historical Linguistics*, Oxford University Press, Oxford.
- Southworth, Franklin C. and Chander J. Daswani (1974) *Foundations of Linguistics*, The Free Press, New York.
- Traugott, Elizabeth Closs and Richard B. Dasher (2002) *Regularity in Semantic Change*, Cambridge University Press, Cambridge.
- Verschueren, Jef (1999) *Understanding Pragmatics*, Arnold, London.
- Watts, Richard J. (2003) *Politeness*, Cambridge University Press, Cambridge.
- Weinreich, Uriel, William Labov and Marvin I. Herzog (1968) "Empirical

Foundations for a Theory of Language Change,” *Directions for Historical Linguistics*, ed. by Winfred P. Lehmann and Yakov Malkiel, 95–188, University of Texas Press, Austin.

Dictionaries

LDOCE = *Longman Dictionary of Contemporary English* (4th Edition, 2003)

MED = *Macmillan English Dictionary* (2002)

8-2-32 Chuodai, Kasugai-shi

Aichi 487-0011

e-mail: hnakano@mwd.biglobe.ne.jp