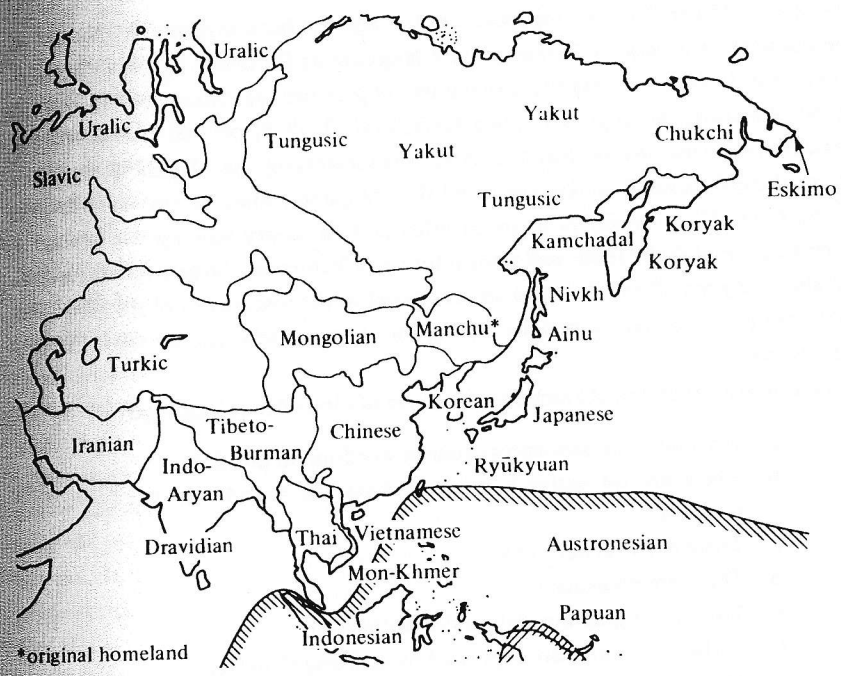
5

Genetic affiliation

As pointed out in the introduction, one of the factors contributing to the myths surrounding Japanese is the uncertainty of its genealogy. Indeed, Japanese is the only major world language whose genetic affiliation to other languages or language families has not been conclusively proven. Since the middle of the nineteenth century, this challenging topic has been attacked by both foreign and Japanese scholars alike, and various hypotheses connecting Japanese to a large number of languages and language families have continuously been proposed. Since the initial hint for a possible genetic relationship comes from a language's geographic affinity to other languages, it might be instructive to become familiar at the outset with the distribution of the languages and language families surrounding Japanese (see Map 2).

Kamei (1961/1973:401–2) conveniently categorizes the past attempts at providing Japanese with a genealogy in the following manner:

1. Theories connecting Japanese with the languages of North Asia.
   a. Theories placing Japanese with the Altaic or Ural–Altaic languages.
   b. Theories connecting Japanese with Korean. The majority of scholars upholding this theory also regard Korean as a branch of the Altaic language family. They try at least to find relationships between Korean and Japanese on the one hand, and between Korean and the Altaic languages on the other.
   c. Theories connecting Japanese with Ryūkyuan. Scholars today are agreed that the language of the Ryūkyuan Islands is a dialect that branched off from Japanese.
2. Theories relating Japanese with the languages of South Asia.
   a. The Malayo-Polynesian or Austro-Asiatic theory.
   b. The Tibeto-Burmese (sic) Theory.
3. Theories connecting Japanese with the Indo-European languages.
4. Other theories. In the past various unacceptable theories have connected Japanese with Persian, Greek, Basque, and Sumerian, but these theories have been quickly forgotten.



Map 2 Locations of languages surrounding Japanese

Not included in the above summary by Kamei are two other hypotheses concerning the origins of Japanese that have attracted increasing attention in recent years, namely the following:

5. A hypothesis that considers Japanese to consist of an Austronesian substratum and an Altaic superstratum.
6. A hypothesis that views Japanese as an Austronesian–Altaic hybrid or mixed language.

Among these hypotheses, 3 and 4 have been least successful, and we will ignore them in this survey. (On the questions regarding the relationships between Japanese and Ainu and between Japanese and Ryūkyuan, see Part 1 and Chapter 9, respectively.) The most time-honored, widely debated, and perhaps persuasive are those that assign Japanese to the Altaic family and those that subgroup Japanese and Korean together within this family. According to Poppe's foreword to Miller (1971), the first systematic attempt to investigate the relationship between Japanese and Ural–Altaic languages was made in 1857 by Anton Boller, who "advanced serious reasons for genetic affinity and illustrated his observations with convincing

examples" (Miller 1971:ix). Japanese scholars had not been as much interested in the question of genetic affiliation of their language as European scholars, and it was only in 1908 that, in response to a number of previous suggestions largely made by non-linguists, the linguist Fujioka Katsuji (1872–1935) pointed out fourteen characteristic Ural–Altaic features. After demonstrating that Japanese largely shares these features, Fujioka concluded that "Japanese must be first connected to the Ural–Altaic family prior to an attempt at a theory relating it to Indo-Germanic." Fujioka's (1908) well-known fourteen features are largely typological, but since they are often taken as a starting point in the discussions of the genetic relationship of Japanese, especially among the Japanese scholars, we summarize them below:

(1) Fujioka's fourteen characteristic features of Ural–Altaic languages

a. No consonant sequences occur in word-initial position.
b. There are no native words that have the sound *r* in word-initial position.
c. There is vowel harmony.
d. There are no articles.
e. There is no grammatical gender distinction.
f. Verbal inflections are expressed by suffixing elements.
g. There are many kinds of verbal endings.
h. Pronominal declensions are expressed by attaching particles.
j. Postpositions, instead of prepositions, are used.
k. In the expression of possession, the existential "be" expression, instead of the possessive "have", is used.
l. In the comparative expression, the ablative "from", instead of "than" is used.
m. In the interrogative expression, a question particle is attached in sentence-final position.
n. Conjunctions are not used widely.
o. Modifiers precede the modified heads, and the object is placed before the verb.

At the time Fujioka delivered his lecture, Japanese was not thought to be a vowel harmony language, but subsequent research indicated a possibility that Japanese too had a feature of vowel harmony (see Chapter 6), and the proponents of the Japanese–Altaic connection generally take it to be a piece of evidence for their hypothesis. (Subsequent researchers notice that Uralic languages do have a word-initial *r*.)

While it is true that Japanese largely shares Fujioka's features, two serious drawbacks are inherent in his methodology. One is that Fujioka's features are largely typological, and the other is that many of them are negative rather than positive features. The weakness of typological comparison in establishing a genetic relationship has been demonstrated by Benveniste (1952–3/1966), who showed that the Penutian language Takelma shares all the six features that Trubetzkoy proposed as typological features that, as a whole, characterize Indo-European languages. Indeed, the proponents of the Japanese–Dravidian(–Altaic) connection (see below) point out that Fujioka's features are largely shared by Dravidian languages as well. The limitations of the typological approach to the question of genetic relationships are made even clearer by recent works in typological research by Greenberg (1963) and others, which show that typological features may be shared by languages that are both genetically and areally distinct.

Notwithstanding the weaknesses and limitations of the early attempts at establishing the Japanese–(Ural–)Altaic relationships, their influence on subsequent research, particularly those efforts that try to relate Japanese to Altaic, cannot be ignored. In fact, typological features, however inadequate they may be, figure prominently in most subsequent discussions on the genetic affiliation of Japanese. And this very fact underscores the difficulty that researchers have encountered in establishing convincing sound correspondences (see below).

Along with the progress in Altaic linguistics, largely thanks to the works of such scholars as G.J. Ramstedt, Nicholas Poppe, Karl Menges, and Johannes Benzing, more careful etymological investigations as well as attempts based on the Neo-grammarian comparative method have been made with the aim of establishing the Japanese–Altaic connection. (Except for a few sporadic attempts, the Uralic component has been excluded from consideration in this tradition, due largely to the uncertainty of the Uralic–Altaic unity.) The standard comparative material on the Japanese side is Old Japanese, as reflected in the writings of the late seventh century and the eighth century, such as the *Kojiki* (*Records of Ancient Matters*) (712), the *Nihon Shoki* (*Chronicles of Japan*) (720), and especially the *Man'yōshū* (*Collection of a Myriad Leaves*) (ca. 759). The Old Japanese materials have been made readily accessible by Omodaka et al.'s (1967) dictionary of Old Japanese. The phonetic details of Old Japanese, though not conclusive in some areas (see Chapter 6), have been ascertained from both the modern pronunciation of the descendant forms and the Middle Chinese pronunciation of the characters used in the transcription of the Old Japanese materials. On the Altaic side, the descriptions of individual languages and the reconstructions made by the aforementioned Altaic specialists are the standard references.

Among Japanese scholars, the most ardent supporter of the hypothesis of a Japanese–Altaic affinity is Murayama Shichirō, an Altaic specialist trained in Berlin, who, in a series of works beginning in the 1950s, has conducted important investigations into the establishment of a Japanese–Altaic connection. Among Western scholars, the foremost promoter of the Altaic hypothesis (in the sense of the hypothesis connecting Japanese and the Altaic family) is Roy Andrew Miller, whose efforts, inspired by Murayama's works (see Miller 1974), culminated in his *Japanese and the Other Altaic Languages* (1971), which attempts to establish the case for the Altaic origin of Japanese. Murayama and Miller, both trained as comparativists, attach the greatest significance to the comparative data. However, supporting evidence for the sound correspondences arrived at is not always provided in sufficient quantity and what is offered is often controversial (see below).

Miller (1971) offers wide-ranging sound correspondences of both vowels and consonants among Altaic languages and Korean languages (proto-, Middle, and Modern Korean) as well as Old Japanese and Modern Japanese, attributing each correspondence to the proto-Altaic phonemes reconstructed by Poppe (1960). The following are sample correspondences of selected vowels in first syllables. (See Chapter 6 for the representative Old Japanese syllables.)

(2)

pA	*a	*o	*u	*e	*ė	*ö	*ü	*ï	*i
OJ	a	o, ö	?/o, ö	?	?	o, ö	?	i	i
J	a	o	u/o	a	a	o	u	i/u	i/u

(pA = proto-Altaic, OJ = Old Japanese, J = Modern Japanese)

As for consonants, we might cite the following correspondences of word-initial consonants offered by Murayama (1973: 205):

(3)

pA	*p	*t	*k	*b	*d	*g	*č	*ǯ	*s	*y	*m	*n	*ń
AJ	*p	*t	*k	*b	*d	*g	*c	*z	*s	*y	*m	*n	*n
OJ	F	t	k	w	y	k	s	y	s	y	m	n	n

(pA = proto-Altaic, AJ = Archaic(proto-?)Japanese, OJ = Old Japanese)

Murayama (1973:205) offers the following cognates illustrating the *y*:*d* correspondence in the table.

(4)

Old Japanese	Altaic languages
yama < **daban* 'mountain'	Mongol *daba-* 'to cross a mountain'
	dabagan (colloquial *dawān*) 'ridge'
	Tungus *dawakīt* 'ridge'

yasu-mi < **dasa-* 'by controlling'	Manchu *dasa-* 'control'
	M. Korean *dasɒ|ri-* 'control'
yopa < **doppa* < **dolpa* 'night'	Tungus **dolba* 'night'
yo < **dō* 'four'	Mongol **dörben*
	Tungus **dügün* < **dō-gün*
yu < **dūl* 'hot water'	Evenki *dūl-* '(the sun) warms'
	Lamut *dul-* 'hot, warm (day)'
	Mongol *dulagan* 'warm'
	Turkish *yïlïg* 'warm'
yösöp- < **dəsə-p-* 'attire oneself'	Manchu *dasa-* 'prepare'
	M. Korean *tasi* < **das-i* 'newly'

Among the grammatical elements, the discussion of the Old Japanese accusative particle *wo* is most interesting in light of our own discussion of the development of this particle within Japanese (Chapter 11). Murayama (1957) first compared this, which he believes to go back to **wə*, with the Manchu accusative suffix *-be* and proto-Tungus **-wa*/**wə*. Miller (1971) elaborates further on these correlations. He points out that both proto-Tungus **-ba* and Old Japanese *wo* share the function of indicating, in addition to objects, time and place, and that the Manchu accusative suffix *-be* also marks a subordinate clause just as Old Japanese *wo* marks a nominalized clause functioning as the object of a main clause. Murayama (1973), by pointing out further that the accusative suffix of Nanay (or Goldi) also has a function as an exclamatory particle, draws the conclusion that the modern Japanese accusative particle *o* and the topic particle *wa*, which are generally believed to have arisen from exclamatory, emphatic particle(s), are relatable to the proto-Manchu-Tungus accusative particle **ba*/**bə*, whose original function, Murayama believes, was to mark emphasis and exclamation rather than a grammatical object.

As the above discussion on the Old Japanese particle *wo* indicates, a close affinity of Japanese to Tungus has been hypothesized by both Murayama and Miller. Other specific languages of the Altaic family that are said to be closely related to Japanese include Mongol and Korean, if the latter were to be considered as an Altaic language. Among the Japanese scholars, Ozawa Shigeo is perhaps the most energetic promoter of a Japanese–Mongol connection, as represented by his effort published in 1968.

Whether one seeks the origins of Japanese toward the north or toward the south (see below), everyone must acknowledge that the most systematic comparative work relating Japanese to a single other language is Martin (1966), who, by comparing 320 seeming cognates and reconstructing their proto-forms, demonstrates a close affinity between Japanese and Korean. The following table lists a

sampling of the sound correspondences and proto-Korean-Japanese reconstructions offered by Martin:

(5)

proto-k-J	K	J	reconstructions	Korean	Japanese
*p..	p	p > hw > h	*pal(y)i 'bee'	"pəl, MK pəli	*pati > hati
*..b(..)	p	b	*syibxa 'brushwood'	səph, MK səp	siba
*..mp(..)	p	m	*txumpye 'claw'	MK thop	tume
*v..	p	#	*vasyi 'foot'	pal < MK 'pal	así
*ts	c	s	*tsuldyi 'line'	cul	sudi
*..lğ..	l	k	*swalğye 'liquor'	sul, MK suul,	sake
*..s..	l	s	*masu 'measure'	mal < MK 'mal	masú
*i	i	i	*jipye 'house'	cip	yipé
*yi	ë	i	*cyic(yi) 'breasts'	cëc	tití
*a	a	a	*taxye 'bamboo'	ta < MK 'tay	take
*wa	u	a	*tsxwampu 'cold'	chuw/p	samu-
*u	u	u	*pudye 'brush'	pus < MK 'put	pude
*ɔ	a < ɔ	u	*pɔnye 'boat'	pä < MK 'pɔy	púne

(In the MK (Middle Korean) forms ' and " indicate high and low rising pitch accents, respectively, whereas in the Modern Korean forms, ¨ marks vowel length. In the Japanese forms, the stress mark indicates a high-pitched syllable.)

While Martin's work is a culmination of efforts that have a long history, especially in Japan, reaching back to Aston (1879), Ōya (1889), or the more thorough overall comparison of Kanazawa (1910), criticisms and revisions have been made by Miller (1967b), Mathias (1973), and Lee (1973), among others. The major criticism of Martin's work centers on the use of primarily modern forms of Japanese and Korean rather than the oldest forms for comparison. Attempts to avoid such criticisms had been made prior to Martin's work by Murayama (1962) and Lee (1963) in their comparison of Old Japanese and an older form of Korean, or at least a component assumed to contribute to the formation of Middle Korean of the fifteenth century, the language of Koguryŏ, spoken by northern Koreans around the beginning of the Christian era. Though we will not dwell on the question of the Japanese–Korean connection here, since it is taken up in detail by Ho-Min Sohn's volume on Korean in this series, at the moment Korean is the single most likely sister language candidate for Japanese. Thus, if the Korean–Altaic connection is proved, the probability of the Altaic origin of Japanese will be considerably strengthened.

Taking all these considerations into account, Miller (1971:47) concludes the introductory chapter to his book by saying that: "the phonological and morphological correspondences in matters of precise detail that can now be established between Japanese and Turkish, Mongol, and Tungus leave no reasonable doubt that Japanese is a later, changed form of the earlier linguistic unity to which Turkish, Mongol, and Tungus must also be referred; in other words, Japanese is another one of the Altaic languages." As to the original homeland of the Altaic speakers, Miller (1980:54) offers the Transcaspian steppe area, where a long series of migrations by the original Altaic speakers started that "would distribute the Altaic languages across the Asian continent, from Turkey in the west to the Pacific coast in the east. These migrations would eventually take them to the Japanese archipelago ..." Miller (1971:44) summarizes the historical relationship of Japanese (and Korean) to the Altaic languages in terms of Figure 5.1 below.

While Miller's proposal is a reasonable one considering the past discussions by himself and others regarding possible connections between Japanese and Korean, between Japanese and Tungus, and between Japanese and Mongol, one would surely find unacceptable his regarding Middle Korean, Old Japanese, and Ryūkyuan as sisters on a par. As discussed in Chapter 9, the Japanese–Ryūkyuan connection is far more transparent than that between Japanese and Korean, and Ryūkyuan is now considered to be a dialect (group) of Japanese by most Japanese scholars. Furthermore, in view of the certainty of the relationships among the languages of the three Altaic groups of Turkic, Mongolian, and Tungusic, on the one hand, and the relative remoteness of the relationships between Japanese and Korean and between these to the three Altaic groups, one cannot simply dismiss Street's proposal (1962) – a suggestion also made by Poppe in his foreword to Miller (1971) – that proto-Korean–Japanese(–Ainu) is related to the Altaic family as a sister language of proto-Altaic, these together forming proto-North-Asiatic.

The most embarrassing problem for anyone attempting to relate Japanese to the Altaic family or to Korean is the phonological discrepancy between the former and the latter. Japanese, especially Old Japanese, basically has a CV syllable structure, whereas Altaic languages and Korean abound in closed syllables with a variety of syllable-final consonants. Also the vowel system of Japanese of various historical stages has been relatively simple in contrast to more complex vowel systems found in Altaic or Korean. Though there is a hypothesis that Old Japanese had eight vowels, most scholars believe that the stage of the eight-vowel system was quite short, arising from a four- or five-vowel system of pre-Old Japanese and turning to the present-day five-vowel system (see Chapter 6). This kind of phonological discrepancy and the difficulty of establishing convincing sound correspondences of significant quantity between Japanese and Altaic languages (and Korean as well) had the effect of making researchers turn their attention to other languages

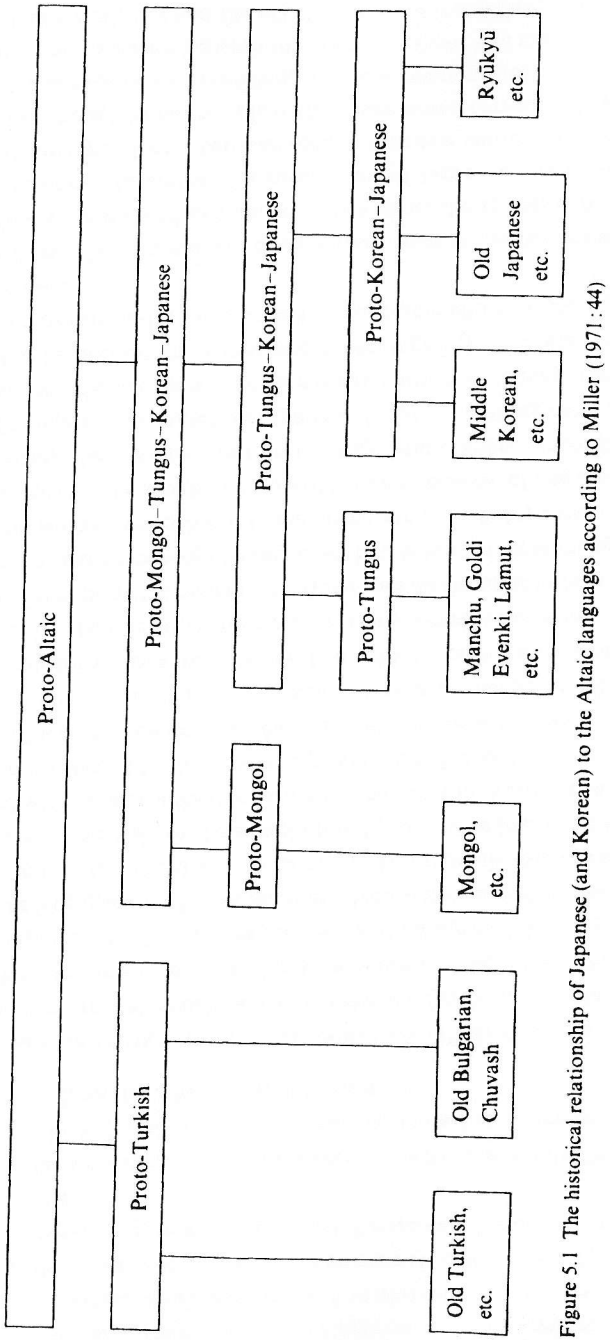


Figure 5.1 The historical relationship of Japanese (and Korean) to the Altaic languages according to Miller (1971: 44)

with relatively simpler phonological systems. From the geographic position of the Japanese archipelago, whose southwestern tip extends toward Formosa, the northernmost Austronesian habitat (see Map 2), Austronesian (or Malayo-Polynesian) languages were natural candidates for comparison with Japanese.

While Kamei's summary of the past research, quoted at the beginning of this chapter, points out theories that seek the origins of Japanese among Austronesian languages, and while there is the expression *nanpoosetu* 'southern theory' in the literature, most serious works that attempt to compare Japanese and Austronesian languages consider the Austronesian elements in Japanese to be primarily an Austronesian lexical stock in the Japanese lexicon, maintaining in the main that the grammatical characteristics of Japanese are of Altaic origin. That is, most researchers who speak of the southern origin of Japanese fall into the categories of researchers who believe in either the southern substratum theory or the mixed-language theory incorporating the southern substratum theory.

Shinmura (1908) is a precursor of the present-day southern substratum theory. In his non-technical general survey of the problem of the genealogy of Japanese, Shinmura concludes that it is indisputable that Japanese is related to Ural–Altiac, though remotely, but suggests that the simple Japanese phonology is due to early mixing with the people of the South Pacific. On the other hand, Polivanov (1924) characterizes the original formation of Japanese in terms of a hybrid of southern, Austronesian elements and western continental elements common to Korean and other Altaic languages. In other words, Japanese is said to be an amalgam of Austronesian and Altaic elements. In a footnote to his 1924 paper, Polivanov lists the following "external similarities" that suggest the closeness of Japanese to Austronesian:

(6) a. typical bisyllabicity of the lexical morpheme (*kata*, *naka*, etc.) and monosyllabicity of the formal morpheme;
b. the presence (which differentiates Japanese from the fully suffixal Altaic languages) of some prefixes in Japanese, this being an Austronesian legacy since all the other, suffixal, morphology is evidently of continental origin;
c. morphological functions of (full and less than full) reduplication in the most archaic layer of Japanese morphology;
d. simplicity of the vowel system and the absence of vowel harmony (as we will see, "tone harmony" replaces it in Common Japanese);
e. musical *Wortakzent*;
f. the fact that open syllables are typical;
g. almost full identity of the very uncomplicated consonant system of pre-Japanese and typical Polynesian (without paired voiced and in

general without "paired" categories of phonemes); incidentally, with three nasals *m*, *n*, and *ŋ*. And also some parallel developments:

h. the process of the loss of lip participation in **p*: $p > f(\varphi) > h$; cf. Japanese $pi > fi > hi$ (*çi*) and Polynesian **apui* > *api* > *afi* > *ahi* 'fire';

i. the secondary nature of the paired voiced semi-nasals (*ᵐb*, *ⁿd*, from which Tōkyō *b*, *d* came) which developed in Common Japanese and, on the other hand, in Melanesian.

With regard to features (b) and (c), Polivanov (1918) discusses the Japanese prefix *ma-* 'very, really', which derives emphatic adjectives, e.g. 'black' *kuro:ma-kkuro*, 'white' *siro:ma-ssiro*, 'inside' *naka:ma-nnaka* 'dead center'. From the pair of onomatopoeic adverbs such as *pikka-ri* and *pika-pika* 'gleaming', Polivanov considers the long [geminate] consonants involved in the *ma*-prefixed adjective forms (as well as in the *-ri* suffixed adverb forms) to be originally due to reduplication, i.e. *ma-kkuro* < **ma-kukuro*. This conjectured proto-form [*ma* + REDUPLICATION] is identified with similar adjective formation patterns in Austronesian languages such as the Tagalog adjective form, e.g. *ma-butingbuting* 'very good', Ilokano *ma-saksakit* 'sick', Melanesian *nanukunuku* 'soft', *manaenae* 'wilted'.

Both Shinmura and Polivanov find supporters in contemporary Japan. In the case of the southern substratum theory, Izui (1953) is perhaps the first systematic formulation. Izui believes that there were various formative elements that contributed to the formation of Japanese. The Austronesian elements in Japanese should be considered as old borrowings by Japanese that, among other language materials from different sources, contributed to the formation of early Japanese. The genealogy of Japanese must be sought in terms of the identification of one language that, upon organizing the various contributing linguistic elements, had the effect of stamping its linguistic character on Japanese. In Izui's thinking there is only one genealogical line, whereas there have been many sources of language materials that contributed to the formation of Japanese. Genealogically, Izui believes, Japanese is northern or continental. (Izui invested considerable effort in relating Japanese to the Uralic family.)

Izui's work has played a number of important roles in the subsequent work in this area. Firstly, as pointed out above, it has given the so-called Austronesian elements in Japanese the status of a substratum of Japanese. Secondly, Izui has shown sound correspondences between certain Japanese words and Austronesian correspondents, though he has been firm that these sound correspondences should not be taken as an exercise in establishing a genetic relationship; they are meant to show the nature of regularity between the borrowed items and their source forms. And finally, Izui's work has had the effect of turning researchers' attention from

a purely genealogical issue to the problems regarding the formation of Japanese. Indeed, as discussed below, more and more researchers are interested in investigating the nature of the entire formation of Japanese, rather than simply attempting to identify its genealogy.

Izui's Austronesian–Japanese correspondences include the following (MP = Malayo-Polynesian):

(7) MP **n* – J *n*

**nam-nam* 'to taste': Batak *nam-nam* 'to taste with the lips, to lick', Tagalog *nam-nam* 'taste', Melanesian (Sa'a) *na-na* 'to eat' – Japanese *namu* 'to lick', *na* in *sakana* 'fish'

**i-num* 'to drink': Tagalog, Chamorro *'inum*, Batak *'inum*, *inum*, Malay *mi-num*, etc. – Japanese *nomu* 'to drink'

MP **ŋ* – J *n*

buŋa*, *baŋa* 'flower': Batak, Malay *buŋa* 'flower,' Tagalog *buŋa* 'fruit', Chamorro *baŋa* 'flower', etc. – Japanese *hana* (<pana*) 'flower'

MP **p* – J **p* > (*p*, *F*), *h*

**put'əg'* 'navel': Tagalog *pusod*, Batak *pusok*, Javanese *pusər*, Malay *pusat*, etc. – Japanese *hoso* 'navel'

MP **t'* – J *s*

**t'abah* 'watered rice paddy, swamp': Malay, Javanese *sawah* 'paddy', Batak *saba* 'paddy', etc. – Japanese *sawa* 'swamp'

**at'at* 'shallow': Javanese *asat* 'shallow', Cham *asit* 'small', Melanesian (Sa'a) *ma-ata* 'dry up and shrink', Samoan *m-asa* 'shallow', etc. – Japanese *asa* 'shallowness'

MP **d* – J *t*, *d* (?)

**dakep* 'to cuddle': Malay *dəkap* 'cuddl(ing)', Batak *dahop* 'cuddl(ing)', Tagalog *dakip* 'to maintain', etc. – Japanese *daku* 'to cuddle'?

The great popularizer of the southern substratum theory is Ōno (1957), who summarizes the formation of Japanese as follows. During the Jōmon period (8000, 7000 BC–400 BC), a language of southern origin with a phonological system like Polynesian languages was spoken in Japan. As the Yayoi culture was introduced to Japan from the Asiatic continent (around 300 BC), a language of southern Korea with the Altaic grammatical structure and vowel harmony began to spread eastward from Kyūsyū along with the eastern spread of this culture, which introduced to Japan the cultivation of rice, iron and bronze implements, and other continental artifacts. Since the migration from Korea was not large-scale, the new language

did not eradicate certain older lexical items, though it was able to change the grammatical structure of the existing language. Thus, genetically Japanese must be said to be Altaic, though it contains Austronesian lexical residues, which account for the scarcity of the Altaic cognates in the Japanese lexicon.

Ōno's view is more radical than Izui's in that he considers the southern elements in Japanese to be not merely due to borrowing. In his view an Austronesian language was once spoken in the Japanese archipelago. Ōno (1980a) maintains his southern substratum theory despite Miller's (1974:458) criticism that "all substratum theories are essentially and fatally circular" – Miller, in this review, incorrectly identifies Ōno's formulation as involving "an Altaic substratum now largely obscured by many subsequent accretions, particularly by Malayo-Polynesian elements" (p. 458). In fact, Ōno is now one of the leading scholars advancing the Japanese–Dravidian (especially Tamil) connection. Ōno's latest view (1980a) subscribes to the concept of a multi-layered formation of Japanese. According to Ōno's summations (1980a:83, 109–10), the earliest Japanese of the period around 8000 BC had a simple phonology with four vowels and vowel-ending syllables (?) – this was perhaps an Austronesian (or Papuan) language. In the middle of the Jōmon period (3500 BC), proto-Tamil, accompanying the eastward migration of the Tamil people, was funneled into Japanese bringing with it many words relating to farming, e.g. J *ine* : T *nel* 'rice plant', J *wasa* : T *paccai* 'early ripening (rice)', J *Fatake* : T *patukar* 'plowed field'. And then around 300 BC (the beginning of the Yayoi period) a Koguryŏ-type Altaic language arrived in Japan via Korea bringing with it Altaic characteristics such as vowel harmony, which lasted until the eighth century but was doomed to die out in the ninth century because proto-Tamil speakers, to whom vowel harmony was foreign, were more numerous than the newcomers.

Though Ōno's Austronesian–Dravidian–Altaic confluence may strike one as being quite farfetched, Shiba (1980), another promoter of a Japanese–Dravidian connection, points out that Dravidian languages and Ural–Altaic languages share a large number of similarities in the first place. Thus, most of the features that have been enumerated as those features shared by Japanese and Ural–Altaic languages, such as Fujioka's listed in (1) earlier and others, are also largely shared by Dravidian languages, indicating not only the possibility of the Japanese–Dravidian connection but also that of the Dravidian–(Ural–)Altaic connection – the latter, according to Shiba, being also contemplated by Dravidian and Altaic specialists such as R. Caldwell, T. Burrow, M.B. Emeneau, K. Menges, and K. Bouda. Shiba also points out that Dravidian languages show similarities to Austroasiatic and Austronesian languages in the following respects: (a) there are three (proximal, medial, distal) series of demonstratives, (b) many body-part words show similarity, and (c) phonologically Dravidian and Austronesian languages share many similarities.

Whereas Ōno's hypothesis emphasizes the layered nature of the formation of Japanese, Murayama (1973), inter alia, more closely subscribes to Polivanov's hybrid or mixed-language hypothesis. As indicated by the discussion above, Murayama was one of the foremost supporters of the hypothesis connecting Japanese to Altaic, especially Tungusic, languages. However, in the middle of 1960s, he discovered Polivanov and began to advance the latter's idea of Japanese being a mixed language of Austronesian/Austroasiatic and Altaic strains. Poppe in his foreword to Miller (1971) also introduces Polivanov's hybrid language hypothesis, adding that "it is quite possible that Japanese does have a Malayo-Polynesian stratum. In the event that several strata can be established in Japanese, Miller's work would be affected insignificantly and would retain its validity with regard to the Altaic stratum in Japanese" (p. xi). Whereas Miller in the text has nothing to say in response to this benign view, Ōno's and Murayama's works can be interpreted as directly aiming at such a possibility by going beyond the Altaic stratum in search of those other elements that may have contributed to the formation of the oldest form of Japanese. While all these scholars agree on the presence of an Altaic stratum in Japanese, both Ōno and Murayama think that the study of the possible Altaic stratum alone, though by no means exhaustively explored, would not solve the questions regarding the origins of Japanese, as evidenced by Murayama's confession: "I myself had been thinking that the problem of the genealogy of Japanese would be resolved by means of comparative Altaic linguistics, but I have reached the conclusion that it cannot be resolved unless the presence of a thick Austronesian substratum is taken into consideration" (Murayama 1973:224).

Though Murayama keeps using the term Austronesian substratum, his view of a mixed language is more than having a large number of foreign words integrated into another language as a substratum or a loan-word component – a situation exceedingly common. What Murayama has in mind is a language whose morphology involves elements deriving from two (or more) different languages – a kind of language that Meillet (1925) declares not to have been found.

Murayama (1973) refers to the work of a Russian linguist who has reported a case of the type of mixed language he has in mind. The case in point is an Aleut–Russian hybrid spoken on the island of Mednyy in the Bering Sea off the Kamchatka Peninsula. Due to the influence of the Russian brought to the island by Russian hunters, some of whom remained and married Aleut women, the Aleut language of the island adopted the Russian system of verb inflection completely. Thus, Mednyy Aleut has a mixed verbal morphology of Aleut stems and Russian

inflectional endings, whereas pure Aleut has been maintained in the other Komandorskiye island of Beringa, where no Russians settled. Murayama believes that the Japanese inflectional paradigm exhibits some forms that are made up in just the way Mednyy Aleut has developed its verbal paradigm.

Murayama (1984) maintains that there is both Altaic and Austronesian stock among the Japanese verb roots, whereas the inflectional endings are of Altaic origin. That Austronesian roots inflect in terms of the Altaic (Tungusic, Korean) inflectional endings is taken as evidence showing that Japanese involves an Austronesian substratum and an Altaic superstratum rather than the other way around. According to Murayama, the Austronesian verb stock includes: **ase* < **asa-i* 'to become shallow, to lighten (as of a color)' (proto-Austronesian **at'at* 'being shallow'), *atari* < *ta-ri* 'to hit' (the verbalized form of *ata* 'foe, revenge') (proto-Austronesian **ha(n)dp* 'frontage'), *nābari* < *nāba-ri* 'hiding' < **Nitamba-* (proto-Austronesian **ta(m)bəŋ* 'hiding'), *tumi* < *tum-i* < **d'ump-i* 'pluck' (proto-Austronesian **d'əmput* 'plucking'), and *watari* < *wata-ri* 'ford' (the verbalized form of *wata* < **wat'a* 'ocean') (Polynesian *wasa* < **wat'a* 'ocean'). (For proto-Austronesian forms, Murayama depends on O. Dempwolff's reconstructions.)

On the other hand, the following and others are said to belong to the Altaic verb stock: *ipi* < *ip-i* 'to say' (Middle Korean *ip* 'mouth'), *nuki* < *nuk-i* 'to doff' (Tungusic *luk-*, *nuk-* 'to doff'), **öki* 'to get up' < **ökö-i* < **ögə-* (Mongol *ögede* 'on top', Tungus *ugi* 'top', *ögili* 'on top', Middle Korean *uh* < **ög* 'top'), **urupi* < **ulup-i* 'moisture, damp' (Evenki *ulap-* 'to become wet', Lamut *ulap-*, *ulup-* 'to become wet', etc.), *wari* < *wa-ri* 'to break, to smash' (proto-Tungus **wa-* 'to kill, to destroy'). The Japanese (reconstructed) verb forms shown here are in the adverbial (nominalized) form with the inflectional endings of *-i* or *-ri*. These endings, Murayama claims, are Altaic in origin; *-i* corresponds to the nominalizing suffix *-i* in Altaic languages, and *-ri* finds its Altaic analog in the Mongol suffix *-ri*, which forms nominals representing the location or result of an action. As for the irrealis forms (see Chapter 10 for the Japanese inflectional categories), Murayama posits *-ra*, whose origin is identified with the Tungusic *-ra*, which attaches to the predicative aorist form. With regard to the conclusive form, Murayama believes it to originate from the combination of the adverbial (or nominal) form and **wu* 'to be'. This **wu* is said to be related to the Ryūkyuan **wum*, which is the conclusive ending that attaches to the adverbial form. Furthermore, **wum* goes back to the proto-form **bü-m*. The *bü-* is then identified with the Mongol *bü-* 'to have', Tungus *bi-si* < **bü-si-* 'to have', Middle Korean *isi-* < **wisi-* < **bi-si-*. The *-m* portion of **wum* is identified with the Altaic nominalizing affix *-m*.

Now, while these inflectional endings originating from the Altaic source attach to verb roots of both Altaic and Austronesian stocks, the combination of an Austronesian root and an Altaic suffix produces a kind of morphological mixing

that Murayama believes characterizes the earliest form of Japanese as a mixed language. In Murayama's view then, forms such as *watari* (<*wata-ri*) 'to ford-ADVERBIAL', *watara* (<*wata-ra*) 'to ford-IRREALIS', *wataru* (*wata-ru* < **wata-rjum* < **wata-ri-wu-m* < **wata-ri-bü-m*) 'to ford-CONCLUSIVE' are mixed morphology *par excellence*. On the basis of his examination of what appear to be Austronesian morphological traits, e.g. morphological derivation involving the prefix **məN-* corresponding to proto-Austronesian **ma-*, in pre-Old Japanese, Murayama believes that the Austronesian contribution to the formation of Japanese is not a simple case of lexical borrowing or of an inert substratum; rather, the Austronesian elements had a far more active participation in the formation of early Japanese. In other words, Japanese is an Austronesian–Altaic mixed language by origin.

While both Ōno and Murayama subscribe to the traditional view that the Austronesian and the Altaic elements form a substratum and a superstratum, respectively, this view has not been universally accepted among those who subscribe to the substratum or the mixed-language theory. Kawamoto (1980), for example, also believes that Japanese was an Austronesian–Altaic mixed language at the time it was formed, but he thinks that it is the Altaic traits, e.g. SOV word order, that form a substratum. His reasoning is based on his observation that, while a strong language forming a superstratum tends to impose its vocabulary on a weaker, subjugated language, in the case of Japanese there are not as many Altaic words as expected from a theory incorporating an Altaic superstratum.

Murayama is not the only convert from the straightforward Altaic hypothesis of the origins of Japanese. Among the most notable is Gō Minoru, who, like Murayama, is an accomplished Altaic specialist. With the background of his fifty years of Altaic studies, Gō (1980) believes that the genealogy of Japanese remains unresolved as it is, and that Japanese must be compared (simultaneously?) with numerous languages. He has performed one such comparison, examining the 200 words of the Swadesh basic vocabulary across the six languages/language families that have been said to be related to Japanese, namely, Korean, Ainu, Altaic, Austronesian, Dravidian, and Papuan. The result was that both Dravidian and Papuan language groups show a greater similarity to Japanese than that exhibited between Japanese and Austronesian or between Japanese and Altaic languages. Encouraged by this and by the shared typological features, Gō has been pursuing a possible Japanese–Papuan genetic relationship.

Whereas the Altaic–Austronesian combination hypotheses are more concerned with the total formation of Japanese than with the straightforward identification of the genealogy of Japanese, there have also been attempts, like Gō's, to establish a genetic relationship between Japanese and specific language families of South Asia. Among these latter attempts, the Tibeto-Burman family figures prominently.

Parker (1939) is the most well-known and ambitious early attempt to compare a wide range of grammatical elements, including pronouns and case particles as well as more general typological features, of Japanese with Tibeto-Burman languages. Despite his confident assertion that great Tibeto-Burman and secondary Mon-Khmer influences are seen in the Japanese lexicon as well as in the syntax and that the relationship between Tibeto-Burman and Japanese is similar to that between Anglo-Saxon and English, his crude methodology – a characteristic not unique to this work – has, like other works, not succeeded in entirely convincing other serious scholars. However, some thirty years later, Nishida Tatsuo, a Tibeto-Burman specialist, began to seriously pursue the possibility of a Japanese–Tibeto-Burman connection.

With full recognition of the possibility that Japanese received influences from a number of languages before it reached the Old Japanese stage, Nishida (1978, 1980) presents the bold hypothesis that Japanese is a member of the Tibeto-Burman family, in which Japanese occupies the position of a classical language along with Tibetan. Nishida's strategy is (a) to establish, from the Tibeto-Burman perspective, the oldest Japanese forms or the morphophonemic (i.e. underlying) Old Japanese forms, which can be systematically compared with the Tibeto-Burman protoforms, and (2) to relate such forms to the attested Old Japanese forms. This is not an orthodox comparative method, which goes back "bottom up" from the available (and reconstructed intermediate) forms, and which, by way of showing the plausibility of the reconstruction, traces the historical development. Nishida, instead, first assumes the Tibeto-Burman origin of Japanese and tries to prove his assumption by showing how Old Japanese forms developed from the hypothesized original Japanese forms comparable to their Tibeto-Burman cognates. If the hypothesized forms are plausible and their subsequent developments down to Old Japanese are shown to be systematic and plausible (from the known facts of historical change), then Nishida thinks that his position is just as good as one arrived at by the comparative method. Nishida's position comes from his belief that the genealogy of Japanese cannot be established by the regular comparative method, which has been highly successful in Indo-European and a number of other language families (see below for a related discussion).

Anyone who knows anything about Tibeto-Burman or the larger group of Sino-Tibetan is struck by the predominantly monosyllabic character of the morphemes among the languages of this group. On the other hand, Japanese, as pointed out by Polivanov (see above), favors the disyllabic morpheme shape. How does Nishida reconcile this glaring discrepancy? Nishida believes that there were two major processes that converted the originally monosyllabic (pre-Japanese) morphemes into disyllabic Japanese forms. One is the expansion of a consonant cluster. By

inserting a vowel characteristically harmonic to the stem vowel in the middle of a consonant cluster, original monosyllabic morphemes were converted into disyllabic words, e.g. Old Japanese *Fana* 'nose' is related to Tibetan *sna* 'nose' in this manner. The other process of deriving disyllabic words is the compounding of monosyllabic morphemes. The Japanese word *musi* 'worm, bug' is analyzed as arising from *mu* 'worm' and *si* 'worm' in view of the corresponding Tibetan *hbu-srin* 'worm', which is a compound form of *hbu* 'worm' and *srin* 'worm'. Among those words that were derived by the first, predominant process, Nishida lists the following:

(8) Tibeto-Burman Archaic/Old Japanese

**gru/dru*	*turu*	*kro*$_2$*-kra* (Burmese) 'crane
**dri*	*tiri*	*dri-ma* (Tibetan) 'dust'
**gral*	*kura*	*gral* (Tibetan) 'seat, rank'
**sgro*	*Fukuro*	*sgro* (Tibetan) 'bag'
**s-kum-*	*sukum-Fu*	*skum-pa* (Tibetan) 'shrink'
**s-tor-*	*sutur-Fu*	*stor-ba* (Tibetan) 'lose'
**d-gar-*	*wakar-Fu*	*dgar-ba* (Tibetan) 'separate'
**s-kram-*	*Fukuram-Fu*	*skrang-ba* (Tibetan) 'inflate'

Like Murayama and others, Nishida also considers correspondences in morphological structure very important, for wholesale borrowing of complex morphological patterns is far less likely than that of separate words. Nishida thus shows the correspondences in inflected verbal forms as well as some derivative processes. For example, the Old Japanese (underlying) conclusive ending of the verb is said to be *-Fu* on the basis of correspondence with the Tibeto-Burman basic verbal ending **-pa* (OJ **sak-Fu* : Tibetan *hchang-pa* 'to split (intr.)'), whereas the adverbial ending *-i(-te)* corresponds to Tibetan *-s(-te)* (OJ *sak-i-te* : Tibetan *bshag-s-te* < **bchag-s-te* 'to split (tr.)'). (The change of *-s* to *-i* is said to be seen elsewhere in Tibetan: e.g. written Tibetan *gos* 'clothes' > *goi* > *göö* > *khöö* (low tone).)

As an example of the correspondences in the morphology of verbal derivatives, Nishida compares the following causative formation pattern between Old Japanese and Tibetan, where the suffixes **-bya* 'to do' (Tibetan) and *-su* < **-tsu* 'to do' (OJ) are said to correspond.

(9) **Non-causative**: 'take shelter'
Tibetan **sdo-d-(-pa)* > *sdod-pa*
OJ *(ya)dor-Fu*
Causative: 'give shelter'
Tibetan **sdo-d-bya* > *sdod(-par)-byed-pa* < **bya-ed-pa*
OJ *(ya)do-su* < **do-r-tsu*

Non-causative: 'to fall, to rain'
Tibetan **pref bu-d(-pa) > hbud-pa*
OJ *Fur-Fu*
Causative: 'to drop, to make it rain'
Tibetan **pref bu-d-bya > hbud(par)byed-pa < *bya-ed-pa*
OJ *Fur-a-su < *Fur-Fa-tsu*

Correspondences of the above and other types that range over a wide area of morphology such as inflections and derivations have led Nishida to believe that they constitute strong evidence that Japanese is a member of the Tibeto-Burman family. Though Nishida's attempts have been criticized by Miller (1980: 188), who says: "his work is distinguished by its extremely careless citation of Japanese forms and their meanings, as well as by its total disregard of the historical principle in linguistics," such characteristics are by no means unique to Nishida's work, as they apply, especially the first point made by Miller, to other works including Miller's own attempts. Indeed, Miller's criticism of Nishida's work illuminates the root of the difficulty in arriving at a consensus regarding the origins of Japanese among the scholars in the field.

Miller (1980) laments the lack of acceptance among his Japanese colleagues of what he considers to be the Western consensus on the matter, namely that Japanese is genetically related to the Altaic family. Miller identifies two causes for this; (a) ignorance on the part of Japanese scholars of foreign achievements in this area, which are mostly published in European languages, and (b) unfamiliarity on the part of Japanese scholars with the method of comparative linguistics. As for the first point, it is surprising that such criticism comes from Miller himself, whose books (1967, 1971, as well as 1980) have long been translated into Japanese and circulated widely in Japan. In fact, Nishida Tatsuo performed the role of editorial supervision over the translation of Miller (1971); his recent arguments for the Tibeto-Burman case, thus, reflect not his ignorance of Western scholarship but the failure of Miller's work to convince him. As for Miller's second point regarding the comparative method, it cannot apply to scholars like Murayama, who was trained as a comparativist in Berlin, or to a scholar of Nishida's caliber, whose historical work in the Tibeto-Burman area commands high respect among specialists in the field. We thus need to look elsewhere in identifying causes for the lack of consensus or the major obstacles that have prevented a solution from emerging that is successful enough to convince the specialists in the field as well as the Japanese public, who are keenly interested in the origins of the Japanese language and of themselves.

The problem is mainly methodological. The comparative method, a most useful and successful tool in historical linguistics, relies on cognate sets, and its usefulness

diminishes as the difficulty of establishing cognate sets between the languages compared increases. A major problem faced by scholars investigating the genetic relationship of Japanese is rooted in the difficulty in establishing cognate sets. One's proposal for a given cognate set is likely to be met with skepticism and counter-proposals. As pointed out earlier, people have been most successful in establishing cognate sets between Japanese and Korean. Martin (1966) offers some 320 sets of seeming cognates, but he is admirably and refreshingly candid about their plausibility on both formal and semantic grounds. In the hundred-word Swadesh list, he finds "twenty items that show the proper correspondences to be cognates and about which we have little doubt" (pp. 196–7). In the case of comparisons involving other languages, reliable cognate sets are extremely small in number. Indeed, when one examines the works that compare Japanese with Altaic languages, one is struck with the scarcity of evidence presented for cognate sets and sound correspondences. This is only to be expected in view of the fact that even among the three Altaic groups of Turkic, Mongolian, and (Manchu-)Tungusic, scarcity of reliable cognate sets is a cause for the controversy over whether these three groups should be seen as forming a linguistic unity.

In his review of Miller (1971), Mathias (1972: 285) remarks: "while the range of sound correspondences is indicated ... very little detail or evidence is presented." When correspondences are presented, their validity can be easily questioned on the basis of phonetic and/or semantic ill-correspondence. Again, to quote from Mathias's review of Miller, "ten correspondences cited as evidence for a certain sound law, whose 'phonetic and semantic correspondences ... leave virtually no room for reasonable doubt' (pp. 115–19), only three or four struck this reader [Mathias] as better than very unlikely" (pp. 286–7). Murayama (1972), apparently discussing the same ten correspondences that Mathias alludes to, evaluates Miller's attempt thus: "Among these ten [sets of] examples very few are suitable for postulating the correspondences [of forms involving proto-Altaic $*l_2$ and Old Japanese *s*] ..., and therefore the author's attempt to compare Mo. [Mongolian] *yašil* 'purple', Tkm. [Turkmen] *yāšil* 'green' on the one hand, and J. [Japanese] *nasi* ['pear'] and J. *nasubi* 'eggplant' on the other, cannot be considered successful" (p. 466).

Similar situations are commonplace in various other attempts to relate Japanese to other languages. Thus, Miller (1974), in turn, criticizes Murayama's (1973) etymological gymnastics in associating Japanese *mimi* 'ear' to Austronesian words meaning 'vulva' as "a little unlikely, to say the least" (p. 100).

The difficulty in keeping semantic discrepancy to a controlled range in the search for cognates is a recurring problem in one attempt after another, and its extent can be illustrated by the controversy between Murayama and Ōno over the latter's attempt to relate the Japanese word *fati, fatti* (*Fati, Fatti*?) 'rompish girl, beggar,

menstruation' with Tamil *patti* 'lawless, unbridled person, theft, prostitute'. Murayama (1981) thinks that Ōno fails to consider the history of Japanese fully, and suggests that these should not be considered as cognates. In the first place, Murayama points out, the Japanese forms *fati* or *fatti* are not attested in Old Japanese nor found in a standard dictionary of Modern Japanese. Murayama thinks that Ōno culled these forms from Tōjō's dialect dictionary, which lists *hati* 'rompish girl' (Wakayama, Ōsaka), *hati, hatti* 'beggar' (Ōita, Kagoshima), and *hati* 'menstruation' (Nīgata, Nagano). Murayama believes that these are three separate words with etymologies of their own. In his opinion, *hati, hatti* meaning 'beggar' comes from the Sanskrit *patra(m)* 'bowl, container' – used by Buddhist monks in religious mendicancy. The word *hati* for 'rompish girl' is said to be related to Chinese **pat* 'eight'. As for *hati* 'menstruation', Murayama suggests a connection with *ti* 'blood'. Now, Ōno (1982) replies by saying that comparisons of wide-ranging meanings in both derivative and dialectal forms of Tamil *patti* and Japanese *hati, hatti* reveal a great deal of semantic overlaps that justify his considering them to be cognates. Ōno points out the following semantic parallels, where parenthetic identifications illustrate localities where the Japanese forms in question are used with the given meanings:

(10) Tamil *patti*	Japanese *hati, hatti*
straying bull	someone shunned (Shizuoka), imperfect pair (Akita)
deceit, defrauder	deceit, lie (Shizuoka)
harlot, prostitute	lustful woman, prostitute (Shimofusa, Ōsaka, Edo)
unbridled person	describes deprecatively a woman who does not obey her parents (Ōsaka, Nara, Wakayama, Okayama, Nīgata, Yamagata)

The question of whether one is persuaded by Ōno's method of identifying cognates aside, the above controversy raises an important, and in fact fundamental, question regarding the comparison of two languages in general and the comparative method in particular. That is, what is a valid basis for comparison? In the above example, Ōno compares contemporary dialect forms of Japanese with a Tamil word, but is such comparison permissible? Also, even the validity of the entire languages being compared is questionable. For example, Ōno (1957: 100, 1980a: 71) notices that Polynesian languages and Tamil both have five vowels, *a, i, u, e, o*, and says that this and other phonological characteristics are extremely similar to the phonological characteristics of Japanese. But Ōno knows better than

anyone that Old Japanese may have had eight vowels and pre-Old Japanese four vowels (see Chapter 6). It is only the central dialects of Japanese after the tenth century that have consistently had five vowels. In fact, since Ōno (1980a) believes, on the basis of evidence from internal reconstruction, that the oldest Japanese vowel system involves four vowels of *a, i, u, o* (see Chapter 6), and since Dempwolff (1934–8) reconstructs four vowels of *a, i, u, ə*, for proto-Austronesian, Ōno's point could have been better made when Japanese and Austronesian were compared at the reconstructed stage.

We have already noted that Martin's (1966) comparison of Japanese and Korean has been criticized because he used modern forms, as opposed to Old Japanese and Middle Korean materials. Indeed, the comparative method involves successive comparison of older forms of potential daughter (proto-)languages. Thus, given a hypothesis connecting Japanese to proto-Altaic, like that of Miller, which was schematically represented in Figure 5.1 on page 102, one expects a comparative linguist proposing such a hypothesis to first reconstruct proto-Korean–Japanese on the basis of Old Japanese and Middle Korean materials, and then compare this proto-language with proto-Tungusic so as to reconstruct proto-Tungusic-Korean-Japanese, and so on before ultimately reaching the reconstructed form of proto-Altaic. Of course, no one, including Miller, has been able to do such a work. However, one can expect of Miller, a true believer in the comparative method (see below), to be at least consistent with the comparative method by using proto-Korean–Japanese, as, e.g., reconstructed by Martin (1966), and to be consistent with regard to the Japanese materials he employs. Miller ostensibly uses Old Japanese materials in his comparison, but many forms he cites are modern forms not attested in Old Japanese, i.e. not listed in Omodaka et al.'s dictionary of Old Japanese, upon which Miller relies heavily. For example, one of the high points in Miller (1971) is the establishment of correspondences between the Old Turkish (OT) root final *l* : *s* opposition (seen in *tol-* 'be (become) full' : *tos-* 'make full') and the Japanese root-final opposition in terms of *r* : *s* (as in *tar-u* 'suffice' : *tas-u* 'make (something) sufficient'), which reflects the transitivity distinction of certain verb roots. The forms ending in *l*/*r* are intransitive (endoactive) and those ending in *s*/*s* are transitive (exoactive). Miller (1971: 135) proposes the following correspondences on the basis of additional Japanese forms such as *wor-u* 'be, exist' : *wos-u* 'rule over, command', *kar-u* 'borrow' : *kas-u* 'lend', *Fur-u* 'fall down' : *Fus-u* 'place, lay (something) face down', as well as forms such as *kiy-u* 'disappear' : *kes-u* 'extinguish', *moy-u* 'burn' : *mos-u* 'burn (something)'.

(11) pA *ta/ol- (*endoactive*)	pA *ta/ol_2- (*exoactive*)
OT *tol-*	*toš-*
OJ *tar-*	*tas-*

As noted above, this is one of the high points in Miller (1971), as it has attracted the attention of several reviewers (Murayama 1972, Bynon 1973, Unger 1973), and as it leads Miller to conclude that: "The correspondence in different items of detail exhibited by these forms alone would probably be sufficient to demonstrate the genetic relationship of Japanese to Old Turkish, and by extension to the Altaic languages in general ..." (p. 135). However, as also noticed by Murayama (1972), the forms *tas-u* (the very form identified as OJ by Miller as in (11)), *kes-u*, and *mos-u* are not attested in Old Japanese. Murayama believes that they are later developments within Japanese in the manner of e.g. *tas-* < *tar-a-s-u*, and that the *-s-* involved here, which changes an intransitive verb to a transitive verb, should be compared with the Japanese verb *s-u* 'to do'.

These illustrations suffice to show the difficulty the researchers in the field face in establishing cognates. The comparative method, of course, does not stop at the stage of cognate identification; sound correspondences and sound laws must be postulated so that protoforms can be reconstructed and related to their descendant cognate forms in a systematic manner. The reason that no one is convinced by anyone else's theory on the genealogy of Japanese lies precisely in the absence of this ever more important step in historical linguistics. The past works at most compare seeming cognates that show correspondences of individual sounds rather than those systematic correspondences that yield sound laws accounting for not only the correspondences of initial or other individual sounds but also whole syllables and ultimately entire morphemes. Recognizing this kind of limitation even in the works dealing with Japanese and Korean, Õe (1978), a specialist in Altaic and Korean linguistics, concludes his review of the literature thus: "To summarize, there are forms that show resemblances, if examined separately, but we are unable to capture the similarities and differences between them systematically in terms of laws of sound correspondence; accordingly, there are still problems to be resolved before we can recognize them [the seeming cognates] as those corresponding to the protoforms from which they arose. That is, we are still not in a position to be able to explain the fundamentals of the linguistic structures of the two [Japanese and Korean] in terms of developments from a common protolanguage."

Õe's sober assessment of the state of the art concerns the Japanese–Korean relationship, which is considered by many to be the most plausible. One can thus infer how primitive other attempts may be when viewed from the perspective of the comparative method. It is because of the difficulty in assembling reliable cognate sets and in drawing sound laws of any validity that Nishida (see above) and others have turned away from the comparative method as a major tool in search of the origins of Japanese. The limitations of the comparative method are felt not only in relation to Japanese but also in other areas. For example, Foley

(1986:209–300), in dealing with Papuan languages that show extensive cross-influence, points out that: "As the comparative method, with its sorting of cognates from borrowings, is deeply grounded in the family tree model, its application to Papuan languages is no mean problem, and suggests that some major rethinking of the method itself may be needed for these languages." Another area is the Altaic family itself. Whereas most scholars believe that the three Altaic subgroups of Turkic, Mongolian, and (Manchu-) Tungusic each form a unity of their own, some doubt that these three groups can be combined to form the Altaic unity representable in terms of proto-Altaic. Miller (1971:9) thinks that: "To follow these critics of proto-Altaic is to abandon the findings and techniques of the comparative method. It is to hold that Indo-European too – as well as proto-Algonquian, and all the many other earlier linguistic unities that have been recovered through its assumptions – is a false and misleading figment of the scholarly imagination." Hardly; those who are questioning the applicability of the comparative method question not the usefulness of the method as a whole, but its usefulness in relation to particular language groups. The comparative method developed where it was most successfully applicable, i.e. in the Indo-European field, where sister languages yield a large number of cognates of high transparency. But where such cognates are hard to identify, the usefulness of the comparative method diminishes. Thus, Foley (1986:229) concludes his discussion on the problems of comparative linguistics in Papuan languages by saying that: "The major point is that all traditional uses of the comparative method can be applied to Papuan languages at a relatively shallow level, but as the relations of a deeper level become the centre of interest, grammatical comparison and reconstruction must assume a progressively greater role in establishing genetic relations."

The likelihood of an enormous time depth lying between the time of Old Japanese and the time when it was in close affinity with other languages is perhaps the major reason why the comparative method has not been as effective as in other situations involving languages of recent splits. Another factor is that, due to several successive landings of different cultural groups in the Japanese archipelago, Japanese in origin may very well have been a mixed language in the Polivanov–Murayama sense. The existence of mixed languages has been reported increasingly in recent years (e.g. Foley (1986) on Papuan languages, and Nishida (1978) on Tibeto-Burman languages). Whereas the concept of genetic relationship is compatible with the concept of a mixed language (cf. earlier discussion on Izui's work), it is reasonable to assume that finding the answer to the original formation of Japanese may require more than the comparative method. Especially needed is a better understanding of the manner in which different languages come into contact and form a new unified structure. In this regard, much can be expected from recent progress (e.g. Bickerton

1981) in the theory of the processes of pidginization and creolization. Inquiries into the origins of Japanese are at present characterized by a lack of methodological principles, but precisely because of this, they may lead to a breakthrough in the methodology of historical linguistics that aims at reaching far back in history – the time depth that renders the comparative method ineffective.

Hattori (1950: 19) concluded his assessment of the field by saying: "So far as the research results of various scholars go, it must be concluded that the genetic relationship between Japanese and other languages, except Ryūkyuan, is not proven." More than twenty years later, Murayama (1972: 457) echoes Hattori in the conclusion of his review of Miller (1971): "The solution to the difficult problem concerning the affiliation of Japanese to other languages has not been entirely achieved ..." Thus, while most people feel that Japanese and Korean are related and that these two languages are related to the Altaic languages, no conclusive evidence has been presented either for such connections or for others. In the field where so little agreement is seen among the scholars involved, few can disagree with Murayama's (1973: 224) suggestion that a possible solution to the question of the genealogy of Japanese depends on detailed studies in the fields of Altaic linguistics, Austronesian linguistics, and of Old Japanese of the Nara period. The enormity of the task requires cooperation among the scholars concerned rather than the bickering that characterizes many recent publications in this field.

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