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The Acquisition of Greek

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References

Codes to be included in "List of grammatical codes" of volume 4:

AUGM	Augment
MOT	Motion
NOMLR	Nominalizer
VBLR	Verbalizer

Symbols occurring in Greek examples to be replaced by standard symbols

6	schwa: ə
dh	lower case delta (voiced interdental fricative) : ð
th	lower case theta (unvoiced interdental fricative): θ
gh	lower case gamma (voiced velar fricative): ɣ
N	velar nasal: ŋ
tsh	tʃ

1. INTRODUCTION

1.1. Descriptive Sketch of Modern Greek[1]

1.1.1. Historical and Typological Considerations

As compared to Latin, a classical Indo-European language which developed into a number of modern idioms -- the Romance languages, Greek has always been one language from ancient to modern times. Modern Greek is thus the sole descendant of Ancient Greek (Browning, 1969; Babiniotis, 1985; Mackridge, 1985).

After the classical period (late fourth century BC), the koine ('common language') developed, a language form based largely on the Attic dialect of Athens, but including some features of other ancient dialects. While spreading throughout the Greek world as it was used as a lingua franca by a large number of geographically dispersed people of different mother tongues, the koine underwent a process of simplification. Many of the changes between Ancient and Modern Greek, especially in pronunciation, but also in morphology, syntax, and vocabulary, had already taken place by the time Constantinople was founded (AD 324). Since approximations to Attic or some other Classical dialect were used for most literary writing, there is mainly indirect evidence (from grammarians correcting their students' language) of the development of the spoken language well into the early middle ages (6th to 12th centuries). According to Browning (1969, p.20), "the modern Greek language had largely assumed its form by the tenth century." Although for the Byzantine koine of the later middle ages (12th to 15th centuries) as well as the early modern

periods (15th to 18th centuries) there is much more direct evidence (mostly from poetic literature written in the vernacular and not in the classicizing, purist tradition) "it is not easy to detect developments in the spoken tongue" in the period from the fifteenth century to the time when the Greek state was founded (about 1830).

What is most surprising in view of the long history of the Greek language spanning over some three and a half millenia, is the slowness of change in Greek, which Browning (p.12) attributes to the "continuous identity" of the Greek language: "It is still recognisably the same language today as it was when the Homeric poems were written down, probably around 700 B.C... The continuity of lexical stock is striking ... And though there has been much rearrangement of morphological patterns, there has also been much continuity, and Greek is quite clearly even today an archaic, 'Indo-European' type of language, like Latin or Russian, not a modern, analytical language, like English or Persian. Earlier stages of the language are thus accessible to speakers of later stages, in a way that Anglo-Saxon or even middle English is not accessible to speakers of modern English." Thus, the changes from Classical to Modern Greek are surprisingly small, even in comparison with those that took place between Latin and Italian (Mackridge 1985, p.3).

In spite of its simplified inflectional morphology as compared to Ancient Greek, Modern Greek is still a highly inflecting (fusional) language, making a fundamental distinction between nominals and verbs and possessing an especially rich verbal morphology. The "basic" or "dominant" word order of Modern Greek is often claimed to be SVO. Since MG has morphological case

marking, word order is not needed for syntactic purposes; it is therefore highly flexible and mainly used for pragmatic purposes (theme/rheme, focus). Philippaki-Warburton (1984, 1982) demonstrates that SVO is really a "subject theme structure" and considers this order to be derived from syntactically basic non-thematic VSO.

The Greek speech community was characterized by diglossia for over two millenia, from the end of the Classical period when writers attempted to approximate Ancient Greek while the spoken language developed away from the old norms, until the mid-seventies of this century. It is, however, only since the foundation of the Greek state that this situation has given rise to the "Language Question" (Browning 1969, p.20). As Mackridge (1985, p.5) points out, the traditional written variety, katharevousa, which is quite close to the Hellenistic koine especially as far as its phonology and morphology are concerned, is not the origin of Standard Modern Greek (called Koini Neoelliniki by certain Greek linguists), although there have been influences. Standard Modern Greek, the language normally used today in both speaking and writing "by moderately educated Greeks in the urban centres" (Mackridge, 1985, p.12) mainly derives from the dialect spoken in the Peloponnese, remarkably close to the written language, since Athens was in large part settled by speakers of that area after it had become the capital of the Greek kingdom in 1834; there were also influences from the dialects of the Ionian islands and the Cretan dialect. The dominant speech community in Greece is constituted by speakers of the standard language, which has largely displaced local dialects. Since 1976, diglossia has more or less ceased to exist. Dhimotiki (demotic) or rather kathomiloumeni ('the widely spoken language') or

neoelliniki koine, which evolved by the integration of katharevousa features into demotic, became the official language of Greece replacing katharevousa in the educational system as well as most other official contexts. Since then Standard Modern Greek has begun to be employed for official purposes, after having been used in literary writing for a very long time. It is worth stressing that, due to the historical "language question," the Greeks are highly sensitive about their language. According to G. Babiniotis (p.c.), "it is possible that there is no longer a 'language question' in Greece today, but there is a strong 'language problem', a problem of the use and quality of language which keeps language in the center of intellectual and educational purposes and discussions."

1.1.2. Phonology and Orthography

Modern Greek (henceforth MG) is written by the same 24 letters as Classical Greek. While the relation of consonantal letters and sounds is more or less straightforward in MG, historical sound changes have resulted in a many-to-one relation between spelling and sound for most MG vowels (the extremely frequent high front vowel i is commonly spelled by eta, iota, ypsilon, or the digraphs epsilon iota and o mikron iota; the mid vowels e and o are written as epsilon or alpha iota and o mikron or o mega, respectively).

MG possesses the five-vowel system i, u, e, o, a which is very common in the languages of the world. Phonemically speaking, there are two series of voiced and voiceless labial, dental, and velar stops and fricatives. The coronal fricatives divide into dental non-sibilants and alveolar sibilants. There are two coronal affricates. The sonorants comprise a labial and dental nasal as well as a

lateral and a flapped liquid (Table 1). A listing of Greek characters and their equivalents are to be found in Table 1 (c).

Insert TABLE 1

The quality and quantity of the vowels is fairly constant, and all are phonetically well distinguished from each other, even in unstressed syllables, except in fast speech, where the unstressed high vowels i and u (as well as e in certain positions) may be reduced or even elided (Theophanopoulou-Kontou, 1972/3). Vowel elision is frequent when a proclitic function word ending in a vowel is placed in front of a lexeme with an initial vowel. In such cases, the hiatus problem may be resolved according to phonological and grammatical considerations (vowel hierarchy; grammatical autonomy of the linguistic form).

The voiceless stops are unaspirated. Except for the two sibilants, which are alveolar (or even palato-alveolar), the coronal obstruents are dental; the coronal nasal and lateral sonorants have dental, alveolar, and palatal(ized) variants and the flapped r is alveolar. Each of the velar stops and fricatives has a palatalized and an unpalatalized variant (palatalization occurs before the front vowels i and e). The palatalized allophones ç and j of the velar fricatives may overlap with the front high vowel i, which may be realized as ç following a non-velar voiceless consonant in the same word (e.g., pióς 'who?' [pjos] or [pços]) or is pronounced j when preceding a vowel (except in words of learned origin or when preceded by consonant + r).

There is mutual interaction between a nasal and an obstruent in word-internal consonant clusters as well as between an initial obstruent and a proclitic ending in a nasal. In such cases the nasal assimilates to the point of articulation of the obstruent and the obstruent voices if it is a voiceless stop. In nasal-stop clusters (which are sometimes purely orthographic, since the Ancient Greek voiced stops were spirantized and the newly developed MG voiced stops are spelled by the sequences 'mp', 'nt', and 'ghk', respectively) the nasal may pre-nasalize the stop or nasalize the preceding vowel, or both, or may drop. The final dental nasal of proclitics (e.g., dhen 'not', the definite articles ton MASC:ACC:SG and tin FEM:ACC:SG) is dropped except before a vowel or a stop (in the latter case, the nasal assimilates to the stop in point of articulation, voices the latter if it is voiceless, and may reduce to a more or less perceptible pre-nasalization).

In MG words, stress falls on one of the last three syllables and is distinctively used for lexical purposes (e.g., ál-a 'other-NEUT:ACC:PL' vs. alá 'but') as well as for inflection (all verbs and many nouns shift their stress; e.g., dhiaváz-o 'read:IPFV-NONPAST:1SG' vs. dhiávaz-a 'read:IPFV-PAST:1SG', ánthrop-os 'man-MASC:NOM:SG' vs. anthróp-u 'man-MASC:GEN:SG'). Since stress placement applies to the unit of the phonological word, stress shifts to the penultimate syllable when a word normally stressed on the antepenultimate is followed by an enclitic pronoun (e.g., [o dháskalos] 'the teacher' vs. [o dhaskalóz mas] 'the teacher of.us').[2] According to Waring (1976, as reported by Mackridge, 1985, p.40), MG rhythm tends to be syllable-timed rather than stress-timed.

1.1.3. Morphology

1.1.3.1. Nouns

The grammatical categories of the MG noun are gender, case, and number. As is common in Indo-European languages, the three genders (masculine, feminine, neuter) are largely inherent, not semantically based, and grammatically used to establish concord. However, many nouns designating professions may be used with either a masculine or a feminine article depending on the sex of the referent (o jatrós (male) 'doctor' vs. i jatrós (female) 'doctor'). Also, gender can be changed by the addition of diminutive or augmentative suffixes. The masculine gender is unmarked as opposed to the feminine one. With the exception of feminine nouns in -os, the gender of a noun is largely determined by the inflectional paradigm to which it belongs (Sotiropoulos, 1972, p.37, cited in Mackridge, 1985, p.48f.). Although gender is a grammatical category in MG, certain general principles underlie gender assignment in addition to nouns designating persons. Thus, most abstract concepts are referred to by feminine nouns (e.g., i elefthería 'freedom') and many inanimate objects are designated by neuter nouns. Gender distribution of nouns is neuter > feminine > masculine (> = more frequent than) with the distance between feminine and masculine being greater than that between neuter and feminine. This is especially true of baby talk, where diminutives rendering nouns either neuter or feminine are even more frequent than in ordinary colloquial speech.

There are four cases in MG if the count is based on the case forms which can maximally be distinguished in a given noun, namely the singular of non-

neuters in -os. These are nominative, vocative, accusative, and genitive (e.g., kírios, kírie, kírio, kiríu 'gentleman, Mr., sir'). Most nouns have only two or three different case forms in each of the two numbers. Nominative and accusative are the most frequently occurring cases, "the genitive being used perhaps less than half as frequently as either of these" (Mackridge, 1985, p.54). Since the genitive case also fulfils dative (besides ablative) functions, it is used with nouns having human referents more often than with other nouns and is also extremely common with pronouns (see 1.1.3.5 below). The vocative has a separate form only in singular non-neuters in -os and is only usable in a limited number of contexts (to call or address a man or a boy). Since in certain circumstances the vocative form in -e may even be replaced by the unmarked form in -o, the genitive form is the least frequently used case form in all.

There are only two MG case forms ending in -s. These are the nominative singular of masculine and other nouns ending in -os as well as the genitive singular of feminine nouns. Singular noun forms without a final -s are therefore non-nominative if masculine and non-genitive if feminine. Furthermore, masculine singular nouns are the only ones to distinguish nominative and accusative formally. While the nominative singular of most feminine and neuter nouns ends in a vowel, this is true for all masculine, feminine, and most neuter nouns in the accusative singular. Except for masculine (or feminine) nouns ending in -os, which have three different singular forms (genitive -u, accusative -o), the other masculine nouns only distinguish two (nominative -s, oblique form ending in the stem vowel). Except for non-neuter nouns ending in -os, which distinguish nominative and

accusative in the plural, all other nouns only have two plural forms, one for nominative, accusative, and vocative and a different one for the genitive (Table 2).

Insert Table 2

1.1.3.2. Adjectives

MG is a language in which adjectives are more similar to nouns than to verbs, morphologically as well as syntactically (Thompson, 1988). Adjectives can be easily substantivized, even without the addition of the definite article. Nouns and adjectives can be used predicatively as complements: o pétros íne fititís/éksipnos 'the Peter is student/clever' (= 'Peter is a student/clever'). In predicative as well as attributive use, adjectives agree with the noun (or pronoun) they modify in gender, number, and case.

The majority of adjectives decline like masculine nouns ending in -os for the masculine gender, like feminine nouns on -a for the feminine gender, and like neuter nouns on -o for the neuter gender (for further details see Mackridge, 1985, pp.140ff.) (Table 3). These adjectives do therefore not distinguish genders in the genitive plural and only have a two-way distinction between feminine and non-feminine in the genitive singular. Feminine and neuter adjectives of this class have two different forms only in each of the two numbers.

Insert Table 3

The comparative can always be formed periphrastically, but most adjectives also have a synthetic form (kalós, 'good', pjo kalós or kalíteros 'better'). The superlative is derived from the comparative by placing the definite article in front of the comparative form (o pjo kalós or o kalíteros 'the best'). In colloquial speech, comparative forms may be emphasized by a combination of periphrasis and synthesis (pjo kalíteros lit. 'more better').

1.1.3.3. Adverbs

Adverbs corresponding to adjectives are usually identical to the neuter nominative-accusative plural form of the adjectives (e.g., kalá 'well'). Frequently used exceptions are lígho 'a little', polí 'much', 'very', móno 'only'. Adverbs form the comparative in the same way as the adjectives (kalá 'well', pjo kalá or kalítera 'better'). In order to express superlative, expressions such as kalítera apó ólus 'better than all of them' have to be used. (For place, time, and manner adverbs see Table 4 below.)

1.1.3.4. Articles

MG has a definite and an indefinite article. In its three genders, the definite article shares many features with the declension of masculine nouns in -os (SG: NOM o, ACC to(n), GEN tu; PL: NOM i, ACC tus, GEN ton), of feminine nouns in -a (SG: NOM i, ACC ti(n), GEN tis; PL: NOM i, ACC tis, GEN ton), and of neuter ones in -o (SG: NOM, ACC to, GEN tu; PL: NOM, ACC ta, GEN ton). Much as with the adjectives, there is only one genitive plural form of the definite article for the three genders and masculine and neuter are not distinguished in the genitive singular. In cases where the final consonant of the accusative singular drops, masculine and neuter are collapsed.

Ancient Greek did not have an indefinite article. In MG the numeral énas 'one' is used with this function (MASC: NOM énas, ACC éna(n), GEN enós; NEUT: NOM, ACC éna, GEN enós; FEM: NOM miá, ACC miá(n), GEN miás). Since the numeral meaning is still quite strong, the indefinite article is most often only used either to emphasize the notion of singularity or with the meaning of 'some(one)' or 'a certain'. Predicative nouns (complements) are normally used without an article; e.g., éjin-e kathijitís 'became-PAST:3SG teacher' (= 'he became a high-school teacher').

With common nouns the definite article is used for specific referents known to the addressee and is obligatory with proper names (e.g., i Italía, o Pétros) and nouns accompanied by possessive pronouns or demonstratives (o filos mu 'the friend me:GEN' (= 'my friend'), aftí i jinéka 'this the woman' (= 'this woman')). It is also used for generic reference in singular and plural expressions. No article is used to express partitive meaning (thél-o ghlikó 'want-NONPAST:1SG cake' (= 'I want some cake').

1.1.3.5. Demonstratives and Pronouns

The demonstratives aftós 'this, that'(proximally unmarked), tútos 'this' (mostly used for non-human referents), ekínos 'that' (proximally marked: distant from speaker/hearer), which are also used as (emphatic) third-person pronouns, as well as the non-personal pronouns (e.g., álos 'other', ólos 'all', o kathénas 'each one', kanénas 'no (one)', ídhios 'same, self', kápios 'someone', o opíos 'who, which' (relative), pjós 'who? which?' decline like adjectives or numerals (kathénas, kanénas), while the pronouns ti 'what?' (also used as an exclamatory particle, e.g., ti oréo 'how nice!'), óti 'whatever', káti 'something', and típota 'nothing' are indeclinable. Table 4 (adapted from Mackridge, 1985, p.232f.) shows the correspondences between the most frequent pronouns and adverbs also occurring in early Greek child language or the language used when addressing the child.

Insert TABLE 4

Personal pronouns divide into emphatic and non-emphatic. While the former are disyllabic or trisyllabic accented free forms, the latter are monosyllabic, unaccented clitics. Only the first and second person pronouns have separate forms; demonstratives are used for the third person emphatic pronouns and the clitic is identical to the definite article (except for the masculine nominative singular and plural, only used with the deictic particle na and the interrogative pu in the phrases nátos, náti 'there he is, there they are!', púntos, púnti 'where is he, where are they?' and the genitive plural tus for all genders). Whether used

proclitically or enclitically, personal pronouns are unstressed and form a phonological word with the lexical unit by which they are governed. This is evident for enclitics, since these cause stress shift in cases where the 'three-syllable rule' would be contravened (e.g., o dháskalos 'the teacher' vs. o dhàskalós mu 'my teacher', ákuse 'listen' vs. àkusé me 'listen to me').

Since person and number are distinguished inflectionally in MG verb forms, pronominal subjects are only explicitly expressed if they are to be emphasized. Therefore, (except in a limited number of circumstances) clitic pronouns do not have a nominative form. The accusative form is used as a direct object with verbs (e.g., me vlépi 'he sees me') and the genitive as an indirect object with verbs (mu dhíni to vivlío 'he/she gives me the book') and as a possessive pronoun with nouns (to vivlío mu 'my book'). When a verb form is constructed with two clitic pronouns, one in the genitive and one in the third person accusative, the accusative always follows the genitive in proclitic position with non-imperative finite forms (e.g., su to dhíno 'to.you it I.give') and may follow or precede it when used enclitically with an imperative verb form (dhos mu to! or dhos to mu! 'give it to.me').

Reflexive and reciprocal meanings are commonly expressed by the use of the passive voice (see 1.1.3.6).

1.1.3.6. Verbs

The grammatical categories expressed inflectionally in the MG verb are mood, aspect, tense, and voice as well as person/number. MG has no infinitive. There

are several conjugational patterns and a host of exceptions; consequently, MG verb morphology is extremely complex.

Person and Number

There are three persons, both in the singular and plural. The second person plural is used for politely addressing a single or several persons. Use of the second person singular seems to be more widespread than in Germany or France, and depends on a number of sociolinguistic parameters. The verb generally agrees with the grammatical number of its subject (for exceptions see Mackridge, 1985, pp.77ff.). In finite verb forms, person and number are expressed by the verb ending, together with mood and/or tense.

Voice

Active and passive voice are formally distinguished. The passive voice is also labelled "medio-passive," since it combines features of the Ancient Greek middle and passive voices. As is the case in other languages as well, there is no perfect correspondence between morphological and semantic aspects of voice. While there are "deponent" verbs which only exist in the passive form but do not have a passive meaning (e.g. kimáme 'sleep', drépome 'be ashamed, feel shy') not all transitive verbs may passivize (e.g., káno 'do', thélo 'want').

The passive voice has three functions, (1) genuinely passive (e.g., polí kúrdhi skotóthikan sto Irák 'many Kurds were.killed in Iraq'), (2) reflexive (e.g., dínome 'I get/am getting dressed'), and (3) reciprocal (e.g., faghothíkane lit. 'they ate each other', 'they had a terrible fight'). Although the agent may be introduced by a prepositional phrase, passives tend to be agentless (Lascaratou

& Philippaki-Warburton, 1981). On the whole, "the more the language variety ... is colloquial, simple and vivid, the less frequent passive constructions are" (p.60).

Aspect, Tense, and Mood

There are three formally distinguished moods: indicative, subjunctive, and imperative. Far from being used for subordination only, the subjunctive also occurs in main clauses and is frequently used in everyday speech. Not only is the future "tense" formed by subjunctive verb forms preceded by the particle tha, but also deontic modal meanings are commonly expressed by subjunctive verb forms preceded by a modal particle, most often na (e.g., na to aníkso? 'shall I open it?'). The negative imperative is expressed by the subjunctive second person form preceded by the negative modal particle mi(n) (e.g., min to aníksis 'don't open it').

Aspect is a more fundamental category of MG verb morphology than tense, since it pervades all three moods, while tense is limited to the indicative (Mirambel, 1942, 1956; Seiler, 1952). Except for the auxiliaries éxo 'have' and íme 'be' and totally stative verbs, such as kséro 'know', prépi 'must', nearly all verbs formally distinguish between an imperfective and a perfective verb stem. The aspectual opposition perfective/imperfective is marked on the stem, whereas the temporal opposition past/non-past is mainly expressed by the ending (leaving aside certain complexities of the second conjugation). While the imperative mood has separate endings, non-past verb forms preceded by a modal particle are used for the subjunctive (see Table 5). Besides mood and the categories of person and number, the main grammatical distinctions of MG

simple verb forms are thus imperfective and perfective aspect and past and non-past tense.

Insert TABLE 5

Whereas indicative forms express reality, non-indicative forms are used either to make statements not verifiable at the time of speaking or to express a desire, wish, command, or supposition. As Mackridge (1985, p.275) points out, "perhaps the most interesting facet of modality in MG is that declarations (or questions) concerning future time are equated with non-affirming statements, which express hypotheses or inferences about the past, present, or future, by virtue of the fact that they are all expressed by the use of tha before the verb."

While tense is a deictic category locating a situation in time (foremost in relation to speech time), aspect concerns the expression of the temporal contour of a situation extending from t1 to tn: The situation may be either described as reduced to a single point in time (with t1 and tn collapsed) or attention may be drawn to the interval between t1 and tn (e.g., díthik-e ghríghora 'dress:PFV:PASS-PAST:3SG quickly' (= 'he/she dressed quickly') vs. dinót-ane óres 'dress:IPFV:PASS-PAST:3SG hours' (= 'he/she needed hours to dress')). Since aspectual distinctions also serve for foregrounding and backgrounding, one can only come to grips with the use of this category in referring to discourse. In contrast to the semantically unmarked categories of the imperfective non-past indicative ("present") and the perfective past

indicative, the imperfective past indicative is marked in that it requires background information (e.g., díthik-a 'dress:PFV:PASS-PAST:1SG' (= 'I got dressed (and am ready now)') but dinómun-a ótan írth-e 'dress:IPFV:PASS-PAST:1SG when come:PFV-PAST:3SG' (= 'I was dressing when he/she came'). The perfective indicative and perfective subjunctive are semantically unmarked because they allow to simply state situations without further qualifications as to progressivity, iterativity, and the like. The use of grammatical aspect is closely related to the aspectual meaning of the verb, its aktionsart, -- as well as other characteristics of the sentence, such as its subject and adverbs. While the imperfective subjunctive and imperfective past naturally combine with (dynamic or stative) durative verbs, they are semantically marked when used with punctual verbs and may express iterativity (e.g., i maría évrisk-e to klidhí pánda sto ídhio méros 'the Mary find:IPFV-PAST:3SG the key always at.the same place' (= 'Mary found the key always at the same place'); Stephany, 1985, p.52). On the other hand, durative verbs may adopt an inchoative meaning when used with the perfective aspect (e.g., i maría aghápis-e ton jáni 'the Mary love:PFV-PAST:3SG the John' (= 'Mary fell in love with John') as opposed to i maría aghapús-e ton jáni 'the Mary love:IPFV-PAST:3SG the John' (= 'Mary was in love with John'); p.52). Except for the imperative mood, which may be quite frequent in certain types of discourse, the imperfective non-past indicative ("present") as well as the perfective past (aoristos) and perfective subjunctive are the most common MG verb forms because they are used to express foregrounded situations without further qualification.

Conjugation Patterns

The inflectional behavior of MG verbs is much more complex and unpredictable than that of nominals. There is a lack of correlation among conjugation class (two chief types), perfective active stem formation (three main types), imperfective non-past passive conjugation (five chief types), perfective passive stem formation (two types), and past passive participle stem formation (five types) as well as lack of consistency among speakers (and even within idiolects) in the use of these procedures. The various stems and endings do not always correlate either (Mackridge, 1985, p.163). Therefore, only the main conjugational characteristics relevant for the description of early child language and of the speech used to address the child will be outlined below.

Of the two chief conjugational patterns, class 1 bears stress on the stem (dhiaváz-o 'read-NONPAST:1SG') and class 2 on the ending (class 2a sinxor-ó, -ís 'excuse-NONPAST:1SG, 2SG', class 2b aghap-ó, -ás 'love-NONPAST:1SG, 2SG'). While most class 1 verbs form the perfective stem by the addition of -s to the imperfective stem, such "sigmatic perfectives" are characteristic of all class 2 verbs, most of which insert i (others insert a or e) before the s (e.g., aghap-ó 'love:IPFV-NONPAST:1SG, agháp-is-a 'love-PFV-PAST:1SG'). Sigmatic perfective stem formation may be accompanied by various morphophonemic processes. Other morphological procedures for forming the perfective stem, -- several of which may coexist within the paradigm of a single verb --, are ablaut (e.g., ben-, bik- 'enter:IPFV-, PFV), change of stem-final consonant, addition or subtraction of sound(s), metathesis, and suppletion. Inflectional endings are more regular. While both

conjugation classes take the same endings in the past and the perfective non-past, class 2 differs in the imperfective non-past (Table 6).

Insert TABLE 6

The imperative singular and plural endings are -e, -(e)te for class 1 verbs and -i/-a, -ite/-ate for class 2 with the final -e being commonly dropped in the singular before t (e.g., kóps-e 'cut-IMP:SG', but kóps to 'cut it'). Since there is a "floating" antepenultimate stress in the past tense of most verbs (see Kaisse, 1976, as cited in Mackridge, 1985, p.183), syllabic augment is obligatory in the singular and third person plural forms of two-syllabic verbs (e.g., ghráf-o 'write:IPFV-NONPAST:1SG', é-ghraps-a 'AUGM-write:PFV-PAST:1SG', but dhiaváz-o 'read:IPFV-NONPAST:1SG', dhiávas-a 'read:PFV-PAST:1SG').

1.1.4. Syntax

1.1.4.1. Simple Sentences

In the MG noun phrase, articles always precede the noun and demonstratives and adjectives normally do. When modifying a noun, demonstratives (and certain quantifiers) are used with the definite article and are placed outside the ART-(ADJ)-N sequence. Although they normally precede this sequence (e.g., aftó to oréo dhóro 'this the nice gift'), they may also follow it for special emphasis of the demonstrative (to oréo dhóro aftó). When an indefinite noun phrase is rhematized and especially emphasized, the adjective may follow the noun (e.g., mu éfere éna dhóro polí oréo 'to.me brought a gift very nice' (=

'(s)he brought me a very nice gift')). In more elevated style, the noun phrase may be interrupted by rather long adverbials inserted after the article (hyperbaton).

There are few, strongly grammaticalized prepositions, which are correspondingly desemantized, serving a variety of functions (e.g., se position in space or time, motion towards a point in space or time, benefactive). Spatial and temporal relations may be further specified by certain adverbials, on their way to being grammaticalized as prepositions (e.g., mésa s-to spíti lit. 'inside in-the house') (cf. Fries, 1988; Stephany, 1990). Except for expressing possession, prepositional phrases introduced by apó 'from' or ja 'for' (both governing the accusative case) may be used instead of genitive noun phrases.

In declarative transitive clauses, the first position is usually occupied by the theme, be this subject or object (o erghátis ékopse éna dhédro 'the workman cut a tree'; to dhédro tó-kopse énas erghátis 'the tree it-cut a workman'), while the rhematic focus tends to be at the end (Philippaki-Warburton, 1982, 1984). When there is no object or complement VS order is more likely than SV (Mackridge, 1985, p.234f.). Although the word order of yes/no questions is normally VSO, it may also be the same as that of declaratives. While SVO is a possible neutral word order in wh-questions (Horrocks, 1980), usually the question word is immediately followed by the verb (VSO, VOS). The latter are the only possible orders when the question word is the subject or direct object.

MG has two particles to negate the verb, dhen and min. Of these, dhen is used in non-modal (indicative) expressions and min in (deontic) modal ones (e.g.,

dhen tha fij-is 'NEG FUT.PTL leave:PFV-NONPAST:2SG' (= 'you will not leave') vs. mi fij-is 'don't leave') (see Mackridge, 1985, p.243 for a different description; also see Veloudis, 1982). Mi (not min) is used as a negative imperative ('don't!'). The negative particle óxi substitutes for a word or phrase and negates parts of speech (or phrases) other than a verb (e.g., tha fijis? - óxi. 'will you leave?' - 'no.' tha fijis i óxi? 'will you leave or not?' óxi aftó. 'not this.one.').

1.1.4.2. Coordination and Subordination

The most frequent connector in early child Greek is the coordinating particle ke 'and', which is also by far the most frequent coordinating particle in the standard language, used to relate single words, phrases, or whole clauses. Ke is also very frequently used for focusing forms, such as pronouns or noun phrases (e.g., k-eghó 'and-I' (= 'me too')).

Of the subordinating connectors introducing indicative clauses, pu serves as a (non-declinable) relative pronoun as well as a conjunction (o kírios pu írthe 'the gentleman who came'; xérome pu írthe 'I.am.glad that he.came'). Causal clauses introduced by jatí 'because' or afú 'since' are also indicative.

Since subjunctive verb forms are generally accompanied by a modal particle, and such verb forms may occur both in main and subordinate clauses, there may be little difference between the two types of construction (e.g. na fij-i 'MOD.PTL leave:PFV-NONPAST:3SG' (= '(s)he shall leave'), thélo na fiji 'I want him/her to leave') (Kakouriotis, 1980). The use of na is extremely frequent, not only in main clauses where it expresses (deontic) modal

meanings, but also in modal verb constructions (corresponding to infinitive constructions in other European languages).

Other conjunctions introducing subjunctive clauses are conditional conjunctions (e.g., an, áma (coll.) 'if') and temporal conjunctions (e.g., ótan, áma 'when').

1.2. Sources of Data

Research on the acquisition of MG as a native language started in the early seventies. As opposed to most studies of child language carried out in the United States, the first studies on Greek child language were undertaken by linguists rather than psychologists. In the summers of 1971 and 1972, G. Drachman and A. Malikouti-Drachman began to study the acquisition of phonology (Drachman & Malikouti-Drachman, 1972, 1973; Drachman, 1975; Malikouti-Drachman & Drachman, 1976) while their student D. Theophanopoulou-Kontou engaged in a Berko-type study (Berko, 1958) on the inflection of the noun (Theophanopoulou-Kontou, 1973). This group of researchers elicited cross-sectional data from normally developing children aged 2 to 9 years growing up in a monolingual environment in Athens. The subjects of Theophanopoulou-Kontou's study were 21 children aged 2;0 to 6;6. Production tests concerned both nouns and nonsense forms inflected for case and number (nominative, accusative , genitive singular and plural) as well as possessive forms comprising an enclitic pronoun. In order to study the acquisition of stress shift in the verb, the Drachmans also asked their subjects

to express commands using enclitic personal pronouns; here, too, some nonsense verbs were employed. Linguistic competence was also tapped by obtaining judgments on correctly and incorrectly stressed forms (Malikouti-Drachman & Drachman, 1976). Drachman (1973) studied the phonological form of lexical items of baby talk in three varieties of Greek, the standard language (Athens), Cypriot, and Acarnanian.

By coincidence, during the summer of 1971, the present author also started her observational study of five normally developing children growing up in a monolingual environment in Athens. Verbal interaction of the children and their caretakers (mainly the mothers) was tape-recorded in natural speech situations (playing, looking at picture books, daily routines) during three periods of observation for four hours or more per child and period (Table 7). In [illegible] observation, the age of the children was 1;8 to 1;11 (mean 1;10); in period II, 2;3 to 2;5 (mean 2;4); and in period III, 2;9 to 2;11 (mean 2;10). A morphological analysis (including morphophonology) of the five children's verb forms and their functions during the three periods, as well as a study of the verb forms used by the mothers when addressing their children during period I in comparison with verb forms they used in their speech to other adults (in the absence of the children), has been published as Stephany (1985; also see Stephany, 1981, 1986, 1989). A (morpho)phonological analysis of a representative sample of these child data has been published as Stephany (1994) and an analysis of nominal inflection (noun, pronoun, adjective) and the syntax of simple and complex sentences has been undertaken for the present chapter (also see Stephany, 1976).

Other studies of Greek child language considered in the present chapter are the following: Katis' (1984) work on the acquisition of verb inflection with special attention to the later emerging imperfective past and perfect, based on quite extensive longitudinal observation of the spontaneous speech of a monolingual child growing up in Athens observed from 2;6 to 4;0 as well as cross-sectional data from 21 other monolingual children aged 2;0 to 4;11; Kazazis' (1969) study of some morphophonological features of the Greek speech of a trilingual girl (Swedish, Greek, English) growing up in the United States during a short period of time at age 4;7; and Panagopoulos' (1984) analysis of palatalized and unpalatalized consonants in the speech of four monolingual 2-year-old children. The comprehension of complex sentences associated with the Greek translational equivalents of the verbs 'tell', 'promise', and 'ask' was studied experimentally by Bellin and Natsopoulos with 60 Greek monolingual children aged 6 to 13 years growing up in Thessaloniki and with 49 bilingual Greek and English speaking children in London (Bellin & Natsopoulos, 1977; Natsopoulos & Bellin, 1977; also see Natsopoulos, 1976, and Bellin & Natsopoulos, 1976). There are only two short studies of the acquisition of Greek derivational morphology: In a Berko-type experimental design, Stephany (1980) studied children's awareness of the transparency of nominal compounds (25 monolingual Greek children from Athens aged 2;8 to 6;0); Thomadaki (1986) analyzed derivational rules apparent in the longitudinal diary-data which Theophanopoulou-Kontou collected from her son.

Insert TABLE 7

1.3. Overall Course of Linguistic Development

1.3.1. Inflectional Categories

In a fusional language like MG, morphology and morphophonology represent a major challenge to the learner. Nevertheless, by 1;10, when longitudinal observation of three children sets in, all grammatical categories inflectionally expressed have begun to emerge: gender, number, and case in the nominal system and mood, aspect, tense, voice, person, and number in the verb. Inflectional categories are not at first generally available but may develop at a different pace in different parts of speech. Within parts of speech, inflectional distinctions develop in certain category conglomerates before others.

In the preinflectional stage, nouns end in a vowel. They are used without determiners and gender distinction is not yet explicit. Nouns are unmarked for number and case and correspond to adult accusative singular forms of the three genders as well as the nominative of neuter and feminine nouns. Such noun forms represent 85% of noun tokens in the children's data up to 2;4 and 74% at 2;10. In nouns and third person pronouns, number may emerge earlier than case or simultaneously with it. In the noun, number distinction is paired with a gender difference between neuters and feminines (and eventually masculines). Not only may number marking of nouns set in as much as nine months earlier than case marking but also (almost) consistant marking of number is achieved between 1;9 and 2;6 when case is still either unmarked or variably marked. Consistant casemarking may lag behind as much as one or even two years.

Since both number and case are marked by a final vowel or by -s reasons for the slower development of case cannot be phonological.

Since number marking is tied to both gender and case, distinction of singular and plural first emerges in the most frequent gender-case combinations of neuter and feminine nouns. Incorrect plural forms are more frequent with masculine nouns and persist longer (at least through 6;4). The number opposition emerges in the nominative/accusative forms of neuter and feminine nouns before doing so in the genitive. With determiners, use of the plural is at first limited to the nominative/accusative form of the neuter gender. The same is true of emphatic and clitic personal pronouns,
where the plural develops in the third person before emerging in the first and second. The reason seems to be that number distinctions are more important with things than with participants in the speech event. Number contrast remains limited to the third person neuter accusative (to 'SG' vs. ta 'PL') until after 2;10.

As is common in Indo-European languages, MG gender is partially based on animacy, with an ensuing interdependence of case and gender (Lyons, 1968, p.293f.) especially noticeable in early child Greek. Thus, in Mairi's speech at 1;10, 80% of masculine or feminine noun tokens are used in the nominative while 69% of neuter nouns function as accusatives. These percentages closely correspond to 86% of animate nouns in the nominative and 70% of inanimates in the accusative. Animacy is important for the use of nouns as actor, goal, or possessor. In spite of the fact that 71% of animate noun tokens in the children's spontaneous speech at 1;10 are either masculine or feminine and 46% of

inanimate noun tokens are neuter, gender cannot be reduced to animacy, since the number of animate neuters and inanimate non-neuters is considerable. A marked semantic basis of gender is only found with [+human] lexemes. It may thus be hypothesized that, in child Greek as well as the standard language, gender classes are predominantly formal noun classes underlying case and number inflection. Because of the interdependence of gender with number and case marking number-case distinctions contribute to the establishment of grammatical gender. In determiners as well as in emphatic third person pronouns, the three-way gender distinction occurs in the nominative before the accusative singular. In the accusative singular of determiners as well as third person clitic pronouns, a two-way distinction feminine ti vs. non-feminine to precedes the three-way distinction feminine ti, masculine to(n), neuter to. Reasons for the late splitting of the non-feminine accusative singular into neuter and masculine are morphophonological. With pronouns, gender distinctions emerge in the nominative and accusative before the genitive and do so in the singular much earlier than in the plural.

Distinction of the nominative of masculine stems from singular noun forms unmarked for case seems to develop simultaneously with the genitive of nouns in the three genders. Evidence comes from the fact that the children studied either do not yet mark case at all or variably distinguish between the three cases of certain stem types. Although children do not rely on the definite article for case distinctions but variably mark this category inflectionally from the start, it may contribute to case distinctions once it has come to be used more reliably by 2;4. Thus, while nominative singular marking of masculine stems by -s remains variable through 2;10, increased use of the definite article

(NOM:SG o, ACC:SG to(n)) helps to distinguish nominative and accusative in more than 90% of tokens from 2;4 on. When feminine nouns are marked by final s in the genitive singular, use of the nominative singular definite article i as opposed to a child Greek feminine singular oblique form ti accomplishes the three-way case distinction of nominative (i + N-0), genitive (ti + N-s), and accusative singular (ti + N-0). Since, from 2;6 onwards, singular nouns of the three genders functioning as genitives are always accompanied by the definite article (FEM:OBL ti for GEN tis, MASC/NEUT:GEN tu), consistant distinction of the genitive singular of masculine and neuter nouns from the genitive is an early accomplishment. Consistant marking of the genitive singular of feminine noun stems by -s is achieved at 3;4, one and a half years earlier than the genitive marking of certain masculine stems and neuter stems by -u. The reason for this delay resides in the fact that, first, only the relatively small class of masculine stems ending in -os distinguish the genitive from the accusative (ton spír-o 'the Spiros-MASC:ACC:SG', tu spír-u, 'of.the Spiros-MASC:GEN:SG') and, second, neuter nouns are less often encountered in the genitive so that the pattern of an unmarked genitive non-feminine noun stem accompanied by the genitive article tu is overgeneralized (e.g., ton patéra 'the:MASC:ACC:SG father', tu patéra 'the:MASC:GEN:SG father'). In the experimental data, standard expression of the genitive singular of feminine nouns by the definite article form tis and stem-final -s is accomplished by 3;9 at the latest.

In all parts of speech, case forms are distinguished in the plural only after having been established in the singular. Theophanopoulou-Kontou (1973) attributes the particularly late development of genitive plural forms of nouns to

low input frequency, minor functional load, prosodic complexity residing in stress shift as well as to grammatical complexity (marked number, marked case). In the experimental situation, children most often decompose the grammatical complexity of the genitive plural by expressing either the case (GEN:SG) or number (ACC:PL) thus using old forms for serving new functions (Theophanopoulou-Kontou, 1973). Another strategy observed in the experimental situation as well as in narrative discourse of the early school years (Stephany, in prep.) is avoidance of the genitive plural by use of prepositional phrases.

With personal pronouns, development of case starts from the nominative/accusative singular neuter forms of the third person emphatic and the genitive first (or third) singular of the clitic pronoun. The first case distinction to emerge in the clitic series is genitive vs. accusative. However, the third person neuter accusative singular to is at first only used used with verbs to express direct objects while the first person genitive singular mu (or, with boys, the third person masculine tu) referring to speaker is used with nouns to express possessor. As long as the two case forms are not both used with verbs it seems questionable whether they belong to a single paradigm in the children's language. Although two of three children observed at 1;10 do use the genitive form referring to speaker with both nouns (possessive function) and verbs (benefactive function), the latter function is very rare. Through 2;4, accusative and genitive forms are sometimes confused when used with verbs. Since pronominal reference to participants in the speech event typically concerns agents, the nominative develops prior to the oblique case in the first and second singular of the emphatic series. Also, the distinction of

nominative and oblique case develops in the first and second person before doing so in the third person. With the nominative-oblique distinction, form seems to precede function.

In Greek as well as in other languages, the starting point of the development of the category of person are the non-shifting, unmarked third person forms of verbs and personal pronouns. The first person split is into third and first singular, with the second singular following. Third person markers specialize in third person function only some time after first person forms have emerged so that, in the beginning, both third and first person verb forms may refer to the speaker. With Mairi, the first person is more firmly established in the possessive function at 1;10 than with verbs where reference to speaker may still be expressed by third person endings. The development of person marking on verbs is tied to the category of mood. While the first person is mastered in the subjunctive mood used for directive or commissive speech acts earlier than in the indicative, in the latter mood, the third person precedes the first, especially so in the past tense. The first person plural is marked on the verb before being expressed pronominally. The second plural is a late development in verbs as well as pronouns.

As far as the development of the grammatical categories of aspect, tense, and mood are concerned, perfective and imperfective as well as indicative, subjunctive, and imperative verb forms are all distinguished by 1;10. Before the end of the second year, non-imperative verb forms thus exhibit a four-way distinction of imperfective indicative ("present tense"), perfective indicative ("past tense"), and perfective and imperfective subjunctive. As long as non-

past indicative forms are limited to the imperfective aspect and past indicative forms to the perfective, tense is implied rather than overtly present. In the beginning stages of development, aspect is rather strictly tied to aktionsart so that the two aspects are rarely contrasted in one and the same tense (past) or mood (subjunctive) of one and the same verb. Functional contrasts between the aspects develop during the fourth and fifth years when the percentage of verbs used with both aspects in the same tense or mood steadily increases and may reach 52% (Katis, 1984).

Already by 1;10, perfective and imperfective aspect are marked on the verb stem in an average of 90% verb form tokens; this percentage rises to 98% by 2;10 (Stephany, 1985, p.82). In both Katis' (1984) and Stephany's (1985) extensive verb form corpora, some overextensions of stem formation patterns occur by the third year, but are extremely rare. The first "tense" forms to develop are the simple past and the non-past ("present"), more precisely the perfective and imperfective indicative. The periphrastically expressed present and past perfect ("pluperfect") remain exceptionally rare until the beginning of the fourth year (Katis, 1984). The subjunctive mood plays a fundamental role for expressing deontic meanings in everyday interaction. It is therefore more frequently attested than the indicative or the imperative at 1;10 and shares the first two positions of the rank order scale of verb form tokens with the non-past ("present") indicative through 2;10 (Stephany, 1985). Subjunctive mood and future "tense" are formally distinguished by modal particles. Since these are often missing in early child Greek or are reduced to their common vowel and in view of the fact that both categories are functionally closely related, classification of certain subjunctive verb forms as "future tense" rather than

subjunctive mood would often be arbitrary at 1;10. It is only after particle use has become more reliable by 2;4 that there is clear evidence for the gradual differentiation of the global category of subjunctive mood into the more specialized categories of subjunctive mood and future tense (Stephany, 1992, p.197).

There is evidence from overextension of medio-passive verb forms that, before the end of the second year, Greek children are aware of the fact that such forms express situations uncontrolled by an agent. Lack of correspondence between form and function of active and passive forms causes quite some confusion in the learner. In the fourth year, active forms may be overextended to medio-passive verbs. Use of active verb forms for situations uncontrolled by an agent last well into the fifth year (Katis, 1984). Overuse of medio-passive forms with reflexive meaning in transitive sentences observed in the third year may be taken as evidence that the reflexive function of such forms has been grasped. Genuine patient-oriented passive constructions are even rarer in child speech than in adult spoken Greek.

While Greek inflectional categories and subcategories have emerged by the end of the fourth or fifth year, the following years are characterized by mainly correct usage of the most common forms. Hesitations and errors remain with less common stems, especially under the strains of an experimental situation. Theophanopoulou-Kontou (1973) thus found standard case-number inflection to be not yet fully mastered by 6;6 and conjectures that the declensional system will only be definitely acquired after 12 years of age. Given the many more intricacies of verbal inflection as compared to that of the noun, this will

be the case for verbal morphology as well. It must not be forgotten, however, that studies referring to speech production and excluding comprehension are liable to underrate children's grammatical competence.

1.3.2. Word Formation

Little is known about the development of Greek derivational morphology. A boy studied in his seventh year shows a tendency of exploiting the formal differences between diminutive suffixes for semantic purposes (Thomadaki, 1986). The need for derivational marking of natural gender evidenced by the same child sheds indirect light on the fact that he considers gender as a formal grammatical rather than a semantic category. In spite of much creativity in the use of several diminutive suffixes, the child does not seem to have acquired general morpheme-based distributional rules. Therefore, the fact that children understand the relation between base and diminutive form does not seem to imply that they have grasped the relation between the morphemes they are composed of. On the other hand, overextension of motion suffixes and a tendency to strictly separate agentive nouns from those denoting professions show an endeavor for a transparent relation between base and derivative. Errors occur with lexically conditioned allomorphs of derivational suffixes. An interesting phenomenon is the creation of derivatives for the purpose of avoiding difficult inflectional forms or syntactic constructions. Most of this child's neologisms are nouns, both derivatives and compounds. Nominal compounds are all endocentric determinative ones and are correct transparent formations closely connected to the corresponding syntactic phrases (Thomadaki, 1986). A concern for transparency and the conversion of unfamiliar forms to familiar patterns was observed by Stephany (1992) at a

much earlier age, when, at 2;10, Mairi and Janna rendered an exocentric bahuvrihi kokin-o-skuf-ítsa 'red-CONN-cap-DIM:FEM:NOM:SG' (= 'little Red Riding Hood') by the attributive noun phrase kókin-i skuf-ítsa 'red-FEM:NOM:SG-DIM:FEM:NOM:SG' (= 'little red cap'). This is evidence that children may quite early analyze complex lexemes rather than using them as mere labels. As shown by Stephany (1980) analyzability of compounds is facilitated by semantic transparency.

1.3.3. Phrases, Simple and Complex Sentences

Beyond the one-word stage, clause constituents are represented by single words and nouns are at first unaccompanied by determiners. Since, in early child speech, reference is mostly clear from context and number is marked on the noun stem, the definite article has a minor functional role to play and it is not surprising that, at 1;10, this strongly grammaticalized functor is often missing or merely represented by a kind of phonetic placeholder. Still, one of three children observed at 1;10 (Mairi), already uses it in 75% of tokens where it is grammatically required. The fact that the definite article is never overused in the vocative case and nearly never misused for indefinite reference shows that its development is under way with the other children as well. There is evidence from Mairi's speech at 1;10 that the complexity of noun phrases depends on utterance complexity. While objects constructed with verbs are usually represented by bare nouns, accusative nouns occurring in verbless utterances are more likely to be accompanied by the definite article. By 2;10, it is employed in at least 90% of obligatory contexts by the three children observed. Besides omission the beginning child system of the definite article differs from the adult system more by underdifferentiation of categories than

by agreement errors. At 1;10, Mairi is the only child to use the indefinite article productively for unidentified specific referents of count nouns referring to easily isolatable objects. She never overuses it with mass nouns in a partitive sense or for marking specific indefinite reference.

Word groups are rather loosely constructed in early child Greek. Demonstratives, such as aftós or tútos 'this', are sometimes midway between pronouns and determiners and the noun is a kind of apposition on the verge of becoming the semantic head of a noun phrase (Janna, 1;10, túto # kílo mimí 'this dog boo-boo' for tútos o skílos éxi mimí 'this the dog has boo-boo'). The pronoun will only become a genuine determiner once constructions such as these become prosodically integrated.

Adjectives are at first used predicatively. Utterance sequences consisting of noun and adjective may be considered as forerunners of attributive noun phrases. Such phrases may emerge before 1;10. The incorrect analysis of the compound kokin-o-skuf-ítsa 'red-CONN-cap-DIM:FEM:NOM/ACC:SG' (= 'Red Riding Hood') mentioned above shows that, at least by 2;10, Mairi and Janna have become aware of adjective-noun agreement. At that time, attributive phrases containing a genitive noun phrase or relative clause are first attested. Such constructions remain difficult, however, and are sometimes replaced by utterance sequences or are accomplished in the course of several consecutive utterances, only to be resimplified when integrated into a clause. Also, noun phrases are sometimes intermediate between attributive and more loosely constructed appositive ones (Mairi, 2;10, s-ti jajá to spíti 'at-the:ACC granny:ACC the house' instead of s-to spíti tis jajás 'at-the:ACC house:ACC

the:GEN granny:GEN'). Although there are nearly no agreement errors with attributive adjectives at 2;10, certain errors remain with predicative use. This difference may be taken as evidence for the proximity principle as against the hierarchical principle governing agreement (Ingram, 1989, p.67). Relative order of referring expression and referent is important with pronouns: anaphoric relations are earlier correctly marked than cataphoric ones.

In declarative sentences containing a single core argument, postverbal position of the nominal or pronominal argument is by far the most frequent order in the three periods of observation, irrespective of its function as subject (82% postverbal) or object (89% postveral). With two core arguments simultaneously expressed, both of the two pragmatically least marked orders V-S-O and S-V-O occur. Until 2;4,V-O-S is also rather frequent, but the highly marked order S-O-V is not attested at all. Since the subject usually follows the verb in sentences in which the object is a proclitic pronoun as well as in cases where the subject is the only verbalized argument, V-S is much more frequent overall than S-V. Early child Greek thus conforms to the most natural word order of the standard language. Also, sequencing errors of clitics are extremely rare. At 1;10, proclitic pronouns may still either be totally absent or mostly omitted, while enclitics are already always used where required. By 2;4 or 2;10, proclitics have become to be used in 90% to 100% of obligatory contexts.

In spite of the fact that nominative and accusative noun phrases are not yet reliably distinguished at 1;10 and verb arguments are not signalled by word order, there is evidence from agreement that the grammatical category of

subject has begun to emerge. Since confusion of nominative and accusative are rare, the category of case is also developing. Still, most early subjects and objects belong to the prototypical classes of animate and inanimate nouns, respectively. Thus, in Mairi's speech at 1;10, 76% of subject nouns are animate while 80% of object nouns inanimate. Since inanimate subjects are mostly used in intransitive sentences and animate objects either rank lower on the animacy scale than the corresponding subjects or do not agree with the verb and cannot therefore function as subjects, ambiguous examples are rather infrequent. Since child-adult dialogues typically refer to the speech event, subjects are often marked on the verb form and objects are commonly expressed by deictic or anaphoric clitic pronouns.

Genitive noun phrases are much rarer in the children's data than genitive pronouns. They are first constructed with the copula to express possessor and are used with full verbs fulfilling a benefactive function only at 2;10. Although the benefactive is also commonly expressed in the standard language by prepositional phrases introduced by the strongly grammaticalized preposition se 'to', the children almost exclusively use se phrases with a locative meaning. Since se mainly occurs in locatives and the genitive at first expresses possessor, locative and possessive meanings are early formally distinguished in child Greek.

The most important type of adverbials in the children's data are locatives. They much more frequent than temporal and manner adverbials and represent the greatest lexical and formal diversity. In the beginning, when nouns are not marked by prepositions, locative adverbs such as mésa 'inside' may represent

the earliest explicit means for signalling this function. By 1;10, locative adverbs may also specify nouns (e.g., aithon-áki ekí 'nightingale-DIM there') or indicate the locative function of an otherwise unmarked noun (e.g., tripa edhó béni aftó 'hole here enters this'). Such constructions are often not prosodically integrated, so that the function of locative adverbs remains indeterminate between reference specification and resumption of the locative complement. Since, in early child Greek, the highly grammaticalized preposition se, which is obligatory with locative adverbs further specificying locative relations, is often missing, the locative adverbs in question assume the function of prepositions (e.g., mésa to spíti 'inside the house' instead of mésa s-to spíti), a tendency also to be observed in the standard language. Again, utterance sequences in which a locative adverb is followed by a noun or phrase to which it refers may be considered as forerunners of prepositional phrases (Stephany, 1992, p.296).

Full predicates occurring in the children's data between from 1;10 and 2;10 are main verbs, modal verbs, and predicatives accompanied by the copula. Predicatives may consist of a bare noun, a pronoun or a noun accompanied by an attributive adjective.

The indicative non-past ("present") imperfective is used with durative verbs to describe ongoing processes or actions and with verbs denoting permanent or temporary states. With punctual verbs it either expresses non-actualized situations (e.g., ghátes (tis) léne 'cats (them) they.call' (= 'they are called cats')) or has a characterizing, structural function as opposed to a phenomenal one (Spiros, 1;10, characterizing a fish depicted in a book, dhangóni 'it.bites').

Although, in reference to the immediate future, subjunctive forms are more frequent, the non-past indicative seems to stress non-factuality and the prospective character of situations (Stephany, 1985, p.137ff.; 1986, p.383).

The only past tense form to be frequently attested in the children's spontaneous speech between 1;10 and 2;10 studied by Stephany (1985) is the perfective simple past. At 1;10, it is most often used with punctual-telic verbs and its rapid growth is limited to this aktionsart through 2;10. Perfective past tense forms typically have a resultative meaning in which the past tense is merely implied (Stephany, 1985, p.141). However, non-resultative use of perfective past forms, which is most important for the development of the category of tense, is also attested already by 1;10. By 2;4, past tense forms may refer to situations further removed from speech time and, by 2;10, there are a few examples of their use in narrative discourse. However, discursive speech predominates to the degree that adult narrative discourse will sometimes be interpreted discursively by the children. Already by 1;10, the children express sequences of situations by utterance sequences denoting a state reached at speech time and the action or event leading to it (Spiros, having caused feedback in the tape-recorder, pái ródhes. fónakse. 'all.gone wheels. it.cried' (= 'the wheels (= tape-recorder) are done for. it (= tape-recorder) cried')). At 2;4 and 2;10, such utterance sequences represent situations as first being expected and subsequently reached.

The imperfective past is first attested by 2;4 and most commonly occurs with durative verbs. In Stephany's data, its role remains limited through 2;10 where it amounts to no more than 5% of simple past form tokens (Stephany, 1985,

p.114). Opposition of the perfective and imperfective aspect in the simple past was found to develop Marilena's spontaneous speech between 2;6 and 3;9 when lexemes attested in both forms gradually became the predominant pattern (Katis, 1984). However, before 3;2, most instances of non-prototypical combinations of aspect and aktionsart are either instances of negated verb forms carrying a special modal meaning or occur in language games. Also, the meaning of certain verbs when used with the perfective or imperfective aspect is quite different so that it is doubtful whether they will be recognized by the child as forms of one and the same lexeme (e.g., pjos xtíp-aj-e? 'who knock-IPFV-PAST:3SG' vs. xtíp-is-a 'hit-PFV-PAST:1SG' (= 'I got hit')). Although, by the second half of the third year, Marilena uses the imperfective past for coinciding situations, she at first expresses only one of them while the other is either implied or provided by the interlocutor (Katis, 1984). The habitual meaning of the imperfective past emerges a little later than the durative meaning but is extremely rare and at first confined to the context of fairy tales. Non-narrative habitual meanings are only found after 4;0. Iterative meanings of the imperfective past develop later than habitual meanings and are even rarer. Incorrect combinations of perfective verb forms with iterative adverbials like 'every day' persist for a long time.

Since, in early child Greek, the perfective simple past typically has a completive, resultative function, it is not surprising that the present perfect is not attested until 2;10 in Stephany's data. In Marilena's speech, use of the present or past perfect increases from 3.6% of past verb forms at 2;6 to 30.6% at 3;9. Both perfects are most likely to occur with telic verbs, the aktionsart also preferred with the simple perfective past. The first function of the present

perfect is resultative. Overuse of the perfective simple past for situations the cause of which cannot be referred to shows that, in the second half of the third year, children have problems with "the delineation of the functional territory of these two related grammatical structures" (Katis, 1984). From 3;5 on, the present perfect is also used to express experience (e.g., éx-o ksana-dhí tétjo 'have-NONPAST:1SG again-see:PERF.FORMANT such' (= 'I have seen such a thing before')). The past perfect emerges later than the present perfect and is first found in Marilena's speech at 3;2. There is evidence that children consider the past perfect more appropriate than the perfective simple past for marking result or experience in remote past. Complete verbalization of two past situations in a row develops late.

The children use a diversity of forms for expressing modal meanings the most important of which are the subjunctive and imperative moods. At 1;10, the perfective subjunctive is the most frequently attested verb form category overall and even surpasses the imperfective non-past ("present") indicative (Stephany, 1985). As with the simple past, the semantically unmarked perfective aspect predominates in the subjunctive mood as well and chiefly occurs with telic verbs while, with atelic dynamic or stative verbs, the imperfective subjunctive is more frequent. Errors are likely when aspect and aktionsart do not harmonize and aspect is accordingly semantically marked (Stephany, 1985, p.166ff.). The earliest and most frequent modal meanings are deontic and dynamic. Epistemic meanings emerge later and are much more rarely attested. In spite of their functional similarity, the imperative and subjunctive moods are formally distinguished already by 1;10. In both moods, the children use the semantically unmarked perfective aspect much more

frequently than the imperfective. Although explicit directives are usually expressed in the imperative, there is some evidence for its functional difference from the subjunctive already by 1;10, when requests are either expressed directly by the imperative or indirectly by the subjunctive depending on addressee and state of affairs. Far from being guided by considerations of politeness, children seem to be uniquely concerned with communicative success, however. Still, Janna, who attends kindergarten, shows a more pronounced tendency than the other children at 2;4 to use the subjunctive rather than the imperative for addressing adults.

At 1;10, the subjunctive mood is used in a "modal-prospective" or "temporal-prospective" function the first of which predominates through 2;10 and is found in deontically modalized utterances referring to situations about to be materialized (Stephany, 1985, p.155; 1986, p.380). Although there is no clear-cut difference between the two functions and futurity is implied rather than explicitly expressed, there is evidence for the differentiation of the early general category of subjunctive verb forms into subjunctive mood and future tense already by 1;10. While desiderative or directive modal-prospective use of the subjunctive occurs with animate subjects commonly referring to speaker or addressee, temporal-prospective use is found in statements and questions about imminent situations uncontrolled by an agent or further removed from speech time and accordingly with inanimate and third person subjects. Also, in cases where it is not omitted and formally distinguished from modal na, the future particle tha is on the whole correctly used and there are few overextensions of na to contexts where tha would have been appropriate.

Furthermore, subjunctive verb forms are negated by dhen in non-modalized utterances (future), but by min in modalized ones (subjunctive).

Due to the extensive use of the subjunctive mood for conveying modal meanings, modal verbs have a less important role to play in standard as well as child Greek as compared to languages such as English or German. The two genuine MG modal verbs prépi 'must' and boró 'can, be able to' are used to convey deontic and dynamic modal meanings, respectively. The more frequent boró most often expresses the speaker's inability to perform an action. It is not used for permission and begins to be constructed with object clauses only by 2;10. Prépi is spontaneously used only by 2;4 and expresses speaker-external source of obligation. Epistemic use of modal verbs is first attested in Marilena's speech at 3;9 (Katis, 1984). However, first hints at the development of epistemic modality appear early. Stephany (1986, p.381) considers predictions, which are not statements of fact, "as precursors to epistemically modalized statements representing a kind of 'null-degree' of epistemic modality." Another source of the developing notion of epistemic possibility may be seen in pretend play (Stephany, 1986, p.393). First instances of pretend play expressed by the imperfective past occur in the second half of the third year and examples steadily increase during the fourth year (Katis, 1984). Complete counterfactual conditional sentences containing both protasis and apodosis occur in Marilena's speech at 3;2 and with the 4-year-olds of Katis' cross-sectional data. However, utterances consisting of the protasis only and taking the form of questions expecting the interlocutor to furnish the apodosis are already attested in the second half of the third year (Katis, 1984). Non-

counterfactual conditionals containing both protasis and apodosis asyndetically combined are to be found as early as 1;8 (Stephany, 1985).

Less frequently occurring but early types of modal expressions are deontic statements of social norms or habits (e.g., dhen váz-un to pódhi 'not put:IPFV-NONPAST:3PL the foot' (= 'one doesn't put one's foot there')). Katis (1984) found first instances of telic verbs used in the negated imperfective past and expressing unwillingness or inability around 2;8 (e.g., dhe tó-vrisk-e 'not it-find:IPFV-PAST:3SG' (= 'he couldn't find it').

Of the three MG negating particles óxi 'no, not', dhen 'not', and modal min 'not', óxi is the first to be productively used anaphorically. Its use for negating non-verbal constituents seems to be a later acquisition, but may occur as early as 1;10 (Mairi). While one of the two children observed at 1;10 who use óxi as their only negator, never overextends it to verbal contexts, the other one does. Although in most cases negator choice (dhen vs. óxi) is the only formal indication of its syntactic integration, examples such as Mairi's podh-ar-áki-a # dhen éxi 'foot-AUG-DIM-ACC:PL not has' (= 'it doesn't have legs') may also point to this. A comparison of the structural complexity of Mairi's affirmative and negated utterances at 1;10 does not confirm Bowerman's (1975) finding on English that syntactic negation leads to a reduction of potential sentence complexity. The reason for this difference between Greek and English seems to reside in the greater structural complexity of English utterances comprising a negated verb. The modal negator min may emerge later than dhen. It is at first rather infrequent and only used with second singular forms to express prohibition or give advice and is often omitted in wishes where semantically

required. By 2;4, it is used with both second and third person verb forms to render deontic modal meanings. At that point of development, the verb negator dhen has become more frequent than óxi, but the latter is used for non-verbal constituent negation only by two children at 2;10. By then, there are more examples of syntactically truly integrated dhen (e.g., eghó dhen íme pja o líkos tóra 'I not am any.more the wolf now').

Although word order of yes/no questions does not normally differ from that of affirmative sentences, the tendency for verb-initial interrogatives becomes more pronounced as the number of yes/no questions containing a verb as well as an argument increases in the course of development. Inanimate ti 'what' is the only interrogative pronoun to be productively used by two children at 1;10. The first interrogative adverb to become productive is locative pu 'where'. By 2;10, causal jatí 'why' has become quite frequent. While the question word always precedes the verb in the three children's speech, such questions often contain an initial topicalized non-clitic argument at 2;4 (e.g., aftó pu tha bi? 'this where will go?').

Connectors are used in simple sentences earlier than in complex predications. The most frequent ones are coordinating ke 'and' and subordinating na 'to, that'. Also the particles jatí 'why', ti 'what', and pu 'where' are used in interrogative sentences before connecting clauses. Complex predications, which represent a considerable grammatical and cognitive achievement, seem to develop from the two sources of asyndetically combined clauses united by a single intonational curve or single clauses introduced by a connector and relating to extralinguistic or preceding linguistic context. The coordinator ke is

first used as a focusing particle meaning 'also'. Such expressions depend on context for their first constituent. The very few examples in which Mairi verbalizes coordinated elements in a single utterance at 1;10 are asyndetic constructions such as pipil-áki sfugar-áki-a mu 'comforter-DIM sponge-DIM-PL me:GEN' (= 'my comforter and sponges'). Although phrases and clauses are syntactically connected by 2;4 or 2;10 discourse use predominates. Clauses connected by ke express additive and adversative meanings as well as temporal sequence.

Before being syntactically expressed, subordination may be signalled prosodically by a rising pitch at the end of the first clause (Natali, 1;8, kreváti aníkso, malóni babá 'bed I.open, scolds Daddy' (= 'if I open the bed (= box), Daddy will scold me')). Subordinated predications increase by 2;4 or 2;10. The most frequently attested types of subordinate clauses are purpose and object clauses with the dependent verb usually introduced by the modal particle na, which is not a conjunction, but part of the verb form. At 1;10, na is still often omitted and matrix and subordinate predications are simply juxtaposed (e.g., éla kathísis for éla na kathís-is 'come:IMP MOD.PTL sit:PFV-NONPAST:2SG' (= 'come and sit down')). Even such constructions are formally distinguished from coordinate ones, since the second (subordinate) verb form is typically in the perfective non-past. Object clauses are commonly constructed with the full verb thélo 'want' or the defective modal prépi 'must' and much more rarely with the modal verb boró 'can, be able'. The motion verb páo 'go' may function as an aspectual verb indicating imminent actions (e.g., píj-e na fá-i ti jajá 'go:PFV-PAST:3SG MOD.PTL eat:PFV-NONPAST:3SG the:ACC granny' (= 'it went/was about to eat granny')) or be used as a full verb

dominating purpose clauses (pá-me na dhúme ta morá 'go:PFV-NONPAST:1PL MOD.PTL see:PFV:NONPAST:1PL the babies' (= 'let's go and see the babies')). Causal, temporal, and conditional clauses introduced by jatí 'because', ótan 'when', and an 'if', respectively, are much more rarely attested and often rely on the linguistic context for their superordinate predication (Stephany, 1985, p.163).

2. THE DATA

2.1. Phonology

Since in a highly inflecting language like MG, morphology is tightly interwoven with phonology, a short overview of phonological development will help to clarify the phonological or morphological nature of morphophonological deviance.

While vowels are on the whole adequately used by 1;10, the same cannot be said of consonants. In spite of the quite elaborate nature of the consonant inventory (see Table 1), the main difficulties consonantism poses to the learner are phonotactic (see below). The flap ɾ is acquired late. Through 2;10, obstruents may undergo processes affecting their strength (e.g., stopping or voicing) or place of articulation (e.g., fronting). At 1;10, especially marked consonantal segments such as the interdental fricatives are disposed of by lenition or fortition processes. Velar fronting mainly affects stops and has become rarer by 2;4, especially with the girl Mairi. Also, paradigmatic

rather than paradigmatic substitutions. Voicing is phonetically motivated at 1;10 but has become phonological by 2;4, when it occurs at the boundaries of proclitics and nouns or verbs (see below).

At 1;10, consonant clusters are still widely reduced to single segments. However, familiarity of forms resulting from high input frequency may inhibit cluster reduction. While clusters consisting of a consonant and the approximant j are usually simplified, the cluster -kj- occurring in diminutive plural forms never is (e.g., pedh-ákj-a 'child-DIM-PL' 'little children'). Of the six obstruent clusters consisting of s and voiceless stop, homorganic ts is the first to emerge. Frequency of its use, either in standard forms or as a substitute for non-homorganic clusters (fónatse for fónakse 'it yelled') may indicate that, already by 1;10, the children have acknowledged the complexity of syllable onsets characteristic of the language they are acquiring. Rare examples of target words with triconsonantal clusters only occur at 2;4; such clusters are nearly always simplified through 2;10.

Since MG words either end in an open syllable or a simple dental or alveolar consonant (n or s), word-final syllable codas do not cause difficulty and consonant apocope is accordingly rare in child Greek in comparison with child English or German (Panagopoulos, 1984). While final n is mainly found in negative particles, pronouns, and a few verb forms, final s very frequently occurs in nouns, pronouns, and verbs in the data of two children (Mairi and Spiros) already at 1;10. This frequency distribution of final consonants is also typical of the input language. The fact that it is attained by two other children only by 2;4 (Janna) and 2;10 (Maria), respectively, has important

consequences for the expression of the grammatical categories of case and number in nouns as well as person and number in verbs (see 2.2).

Considered from a functional point of view, the different phonological processes relating child to adult forms may be considered as "conspiring" to assimilate the latter to the children's level of development. Adult lexemes consisting of two simply structured syllables comprising unmarked segments are least likely to be altered. Their phonological structure may be considered as a kind of measure for the children's phonological competence and serves as a kind of template or filter through which segmentally or prosodically more complex words must pass. Prosodic simplifying techniques are syllable deletion and vowel or consonant harmony. Since application of techniques depends on a word's overall complexity, substitutions must be studied on the basis of the overall structure of words or even phrases. Especially with tri- or tetrasyllabic words, word length is traded for complexity of syllable structure and overall prosodic structure.[3] Harmonizing processes represent a strategy for reducing the overall segmental diversity and articulatory complexity of forms, while keeping their length unimpaired. Although less frequent than harmonizing processes, nonstandard deletion of unstressed syllables, especially pretonic ones, occurs in words three or more syllables long through 2;10 (e.g., Spiros, 1;10, mamísi for paramíthi 'fairy tale'). In Mairi's data at 1;10, for which reduced and unreduced forms have been compared, most tokens of such words are unreduced (e.g., ajeládha 'cow': ajeládha/ajeláza 18 tokens, jeládha 2 tokens). Thus, reduction does not demonstrate incompetence, but articulatory ease in a given situation. Especially at 1;10, not only long lexemes but also more strongly grammaticalized bisyllabic function words are

prone to syllable loss (Mairi 1;10, ekí 'there' 47 tokens, ki 45 tokens; íne 'is' 112 tokens, ne 6 tokens). Nonstandard vowel apocope may affect inflectional endings through 2;10, but untruncated forms are usually more frequent (e.g., o líkos in for o líkos íne 'the wolf is' (= 'it's the wolf'). Besides nonstandard deletion processes, the children have begun to apply standard deletion of pre- or posttonic unstressed syllables at word boundaries (see below).

Harmonizing processes exhibit the following general tendencies (see also Drachman & Malikouti-Drachman, 1973): (1) Stressed and final vowels or syllables spread more often than unstressed non-final ones (Spiros, 1;10, mukikí for musikí 'music'). (2) Unmarked consonants are more likely to spread and be substituted for marked ones (2;0, téti for kéti 'Kathy' (Panagopoulos, 1984)). (3) Depending on the individual child, consonant harmony may affect place or manner of articulation (fronting vs. spirantization) (2;0, pípi for spíti 'house'(Panagopoulos, 1984); Mairi, 1;10, seléfono for tiléfono 'telephone'). (4) Complete reduplication resulting from harmonizing processes is restricted to bisyllabics (2;3, lilí for klidhí (Drachman, 1975)). (5) Assimilation is usually anticipatory (2;3, memóni for lemóni 'lemon' (from Drachman, 1975)).[4] (6) Consonant harmony persists through 2;10 and thus longer than vowel harmony. However, standard tokens outweigh harmonized ones already by 1;10.

Rearrangement of segment features or whole syllables also show that the overall phonological gestalt of target forms is taken into consideration in the children's manipulations (2;9, talátilo for paráthiro 'window'; ghulaváki for laghudháki 'rabbit' (Drachman & Malikouti-Drachman, 1973)).

Children nearly always simplify sequences of identical vowels across word boundaries as is common in the standard language (e.g., ke + ekí -> kekí 'and there', ta + ála -> tála 'the others'). They vary in the point of development at which they contract sequences of different vowels at word boundaries and in the frequency of such contractions (e.g., pu íne vs. pú'ne 'where is'). Such variation may be due to individual differences concerning the stage of development at which attention is paid to clear marking of function words.

In standard Greek, proclitic determiners, pronouns, and negative particles ending in a nasal may voice a following stop as well as assimilate to the latter's point of articulation and eventually drop after (optionally) prenasalizing the stop (e.g., tin píra 'her I.took' [timbíra], dhen boró 'not I.can' [dhem boró] or [dhe boró]). Not surprisingly, children exhibit much variation in the realization of such sequences (examples 1) and these sandhi rules have not been completely mastered even by some 9-year-olds (Drachman and Malikouti-Drachman, 1973).

(1) (a) Mairi 2;10
dhen boró [dhem/dhe boró]
not I.can

(b) Mairi 2;10
jatí dhen káthese [j6dí nen kádh6dh6]
why not you.sit

(c) Janna 2;10

dhen kléi [dheNgléi], [dheNkléi], [dhegléi], [dhekléi]

not it.cries

Since, by 2;4, articles and personal pronouns are much more frequently used, these assimilatory processes result in a general tendency of phonologically conditioned lenition which can be taken as evidence of the children's awareness of external sandhi operating between proclitics ending in a nasal and lexemes with an initial voiceless stop.

The resulting allomorphy leads to some uncertainty concerning the sonority of verb- or noun-initial stops (examples 2).[5] However, examples such as these vary with correct use in the speech of each child.

(2) (a) Maria 2;4

i bégi for i pégi

the Peggy

(b) Janna 2;4

i gúnja for i kúnja

the swing

(c) Mairi 2;10

abó bu do bírame? for apó pu to pírame?

from where it we.took

'Where did we get it from?'

Errors with lexical stress or grammatically conditioned stress shift are extremely rare in Stephany's data of spontaneous speech gathered between 1;10 and 2;10. There is a single instance of transgression of the trisyllabic stress rule placing stress on one of the last three syllables in more than five thousand verb form tokens (Stephany, 1985). Not only are all non-past indicative and subjunctive forms not underlying stress shift already correctly stressed by 1;10, but also nearly all imperative and past tense forms which may exhibit stress shift. There is evidence, however, that the intricate interaction of stress shift and vowel apocope in the imperative form of disyllabic stems still causes difficulty at 2;10 (Mairi, 2;10, àni-tó-mu for àniks-é-mu-to 'open:PFV-IMP:SG-me:GEN-it:ACC' (= 'open it for me!'). Also, the very common subjunctive forms without stress shift sometimes influence imperative forms which do underlie stress shift in the standard language (e.g., aníjc for ánij-e 'open:IPFV-IMP:SG' in analogy to na aníj-is 'MOD.PTL open:IPFV-NONPAST:2SG'). The fact that nouns are nearly all correctly stressed is partly due to the near-absence of accusative and genitive plural forms requiring stress shift. Most of the few errors of stress placement in nouns and other lexemes can be explained by analogy to similar lexemes with a different stress pattern (e.g., 1;10, kúti for kutí 'box' in analogy to kúta 'box'), by an effort to avoid stress clash (1;10, éki étsi for ekí étsi 'there like.this'), or by the desire to be expressive (e.g., 2;4, edhó ipá for edhó ípa 'here I.said').

There is an example in Mairi's data at 2;4 where she avoids a syntactically complex attributive construction with which she is not yet familiar by nonstandardly placing contrastive stress on an enclitic pronoun (3).

(3) Mairi 2;4
káse s-ti karékla sú
sit on-the chair you:GEN
for kátse s-ti dhik-í su karékla
sit on-the own-FEM:ACC:SG you:GEN chair:FEM:ACC:SG
'Sit on your own chair!'

2.2. Morphology

2.2.1. Introduction

As mentioned above, MG is a typical Indo-European inflectional language, in which grammatical categories are expressed not only by systematically modifying the shape of words, but nominal and verbal inflections each comprise a number of different patterns. MG morphology and morphophonology thus represent one of the language learner's major challenges. In spite of this, all of the MG grammatical categories inflectionally expressed begin to emerge before the end of the second year. In the nominal system, these are gender, number, and case; and in the verbal system, aspect, tense, mood, and voice, as well as person and number. In this section, the development of nominal and verbal inflectional forms is mainly described within the different parts of speech (2.2.2 - 2.2.3). A more general picture

taking into account the functions of inflectional forms will emerge in 2.3. The present section closes with an account of the little that is known about the acquisition of MG word formation (2.2.4).

2.2.2. Nominal Inflection

2.2.2.1. Nouns

Although MG nominal inflection is by far less complex than verbal inflection, there is a considerable number of noun stem types to be mastered. Studying case-number inflection of fourteen of these (six masculine, four feminine, four neuter) experimentally in three groups of monolingual Greek children aged 2;0 - 2;6 (N = 4), 3;2 - 5;5 (N = 12), and 5;6 - 6;5 (N = 5) Theophanopoulou-Kontou (1973) found the adult system not yet fully mastered by 6;6. The following is based on Theophanopoulou-Kontou's observational data of a group of children aged 1;8 to 2;0, her experimental data, and my longitudinal data of three children in each of three periods of observation at 1;10, 2;4, and 2;10. While the youngest subjects studied by Theophanopoulou-Kontou (1;8 - 2;0) did not yet mark number or case in speech production, they distinguished the relevant categories in comprehension. The following analysis, which is restricted to production data, is therefore likely to underrate the children's grammatical knowledge.

In the first stage of Greek language acquisition, nouns are used without determiners. They lack overt casemarking and correspond to standard accusative singular (or plural) forms ending in a vowel (e.g., babá MASC 'daddy', mamá FEM 'mummy', pedhí NEUT 'child'). Since such forms cover the nominative of the neuter and feminine gender and the accusative of all

three of them, they are the most frequent singular noun forms occurring in the input. Although exact proportions for nouns could not be calculated for lack of grammatical coding, child-addressed speech of three mothers at 1;10 contains 78% to 94% of words forms ending in a vowel (N = 8,454). Word forms ending in -s (including verbs) amount to 2.6% - 10%.

Due to their frequency and the phonological simplicity of their endings, unmarked noun forms amount to 85% (N = 860) of noun tokens in the children's data at 1;10, 91.5% (N = 353) at 2;4, and 74% (N = 399) at 2;10, with very little individual variation.

Although the three subjects observed at 1;10 use plural noun forms as well as masculine stems marked by -s for nominative singular (as well as a few genitive forms), number seems to emerge earlier than case. While three of five children first studied between 1;9 and 2;3 do not yet use noun forms marked for case, all of them quite freely employ plural forms (of certain stem types). Casemarking on the noun may set in only after 2;4, about half a year later than plural marking. Also, number develops more quickly than case and may be (almost) consistently marked at a time when case is still either unmarked or variably marked. Ten subjects aged 1;9 to 2;6 mark 97% of notionally plural noun tokens (N = 348). Some children achieve consistent marking of plural on the noun as early as 2;3. It is found with all six children studied at the ages of 2;9 to 3;4.

Comparing number to case, percentages of noun stems marked for case are at first much lower than those marked for plural with most subjects. Also, consistent marking of case may be delayed for one or even two years as compared to plural marking. Since, according to gender and stem type of

nouns, both number and case are marked either by a final vowel or by -s, the reason for the differences in the development of number and casemarking is unlikely to be a phonological one. Since the plural is marked on the noun stem in most of the children's tokens, determiner use is in general irrelevant for distinguishing singular and plural. Matters are somewhat different for the development of case distinctions, as discussed below.

Casemarking develops at a different rate in different combinations of gender, case, and number as well as in different inflectional patterns of a given gender. The following figures also point out that there is some individual variation. While three subjects of the experimental study consistently mark the nominative singular of masculine nouns (by -s) by 2;3, 3;2, and 3;4, respectively, and all of them do so by 3;9, three other subjects aged 2;4 to 3;4 merely mark 49% to 72% of such tokens. The rates of masculine noun stems marked for nominative singular by the linguistically most advanced child Mairi of the observational study are 50% at 1;10, 59% at 2;4, and 69% at 2;10. In the experimental study, percentages of nouns marked for the genitive singular are in the beginning much lower than those marked for the nominative singular with all subjects. In the age range of 2;3 to 3;4, they vary between 17% and 85%. Consistent marking of the genitive singular is achieved earlier with feminine nouns than in the other two genders. According to the experimental data, it has stabilized with nouns of the three genders only by 4;10.

In what follows, the development of the categories of number, case, and gender in the noun will be studied in more detail. The most common plural

forms found in early child Greek are the nominative/accusative forms of neuter nouns ending in -i, whose frequency is considerably increased by a very pronounced tendency of both Greek baby talk and child Greek to use diminutives, especially those formed by the diminutive suffix -áki (e.g., puláki 'birdie', puláki̯a 'birdies'). Other plural forms emerging early are the nominative/accusative forms of neuter stems ending in -o (e.g., fílo 'leaf', fíla 'leaves') or -ma (e.g., prághma 'thing', prághmata 'things'), of neuters ending in a stressed vowel (e.g., pedhí 'child', pedhjá 'children'; moró 'baby', morá 'babies') as well as of feminines ending in -a (e.g., kiría 'lady', kiríes 'ladies'). Especially masculine nouns belong to the types of stems for which plural forms emerge later. They first occur at 2;6 and 2;10 in the experimental and observational data, respectively, and become more frequent only by 3;4. Errors are frequent and persist through 6;4.

There is no doubt that synthetic marking of the category of number on the noun stem is more basic in Greek language development than its marking by the use of a plural determiner. The children observed longitudinally make frequent use of the plural definite article only with neuter nouns all of which are marked for plural. Even in the experimental situation, subjects do not seem to follow the strategy of expressing plural by the determiner when ignoring the appropriate noun form. Some of the few examples in which they use a plural definite article or quantifier with singular noun forms concern neuters ending in -a resembling plural forms (e.g., ta pátoma for ta patómata 'the floors'). Only with rarer stem types, such as masculine and feminine stems requiring the dh extension before the plural ending -es, subjects of the experimental study sometimes use a plural determiner with the singular forms of the noun (e.g.,

polé alepú for polés alepúdhes 'many foxes', dhío papá for dhío papádhes 'two priests'). The fact that, in plural contexts, the children also use singular noun forms unaccompanied by a determiner proves that they do not rely on the determiner for expressing number.

The marked/unmarked distinction -s/-0 contrasts nominative and oblique case of certain masculine nouns (babás NOM:SG, babá OBL:SG 'daddy') as well as the genitive and nominative/accusative of feminine ones (mamás GEN:SG, mamá NOM/ACC:SG 'mummy'). With neuters ending in -i or -o, the genitive is opposed to the unmarked nominative/accusative singular by adding -u (pedhiú [pedhjú] GEN:SG, pedhí NOM/ACC:SG 'child'). The only nouns with a three-way case distinction are masculines ending in -os (pétros NOM:SG, pétru GEN:SG, pétro ACC:SG 'Peter'). Marking of the nominative singular may at first be limited to the most common masculine -o stems, but may also be found with stems ending in -a or -i as early as 1;10. Overall percentages of marking and onset of marking vary considerably among children. While, at 1;10, Mairi marks 50% of masculine stems for nominative (N = 76), Maria starts marking them only after 2;4. Probably due to his greater experience with at least one masculine noun ending in -os (his first name) the boy Spiros marks 85% of the respective tokens already by 1;10 (N = 34). Only masculine nouns ending in -os distinguish between nominative and accusative in the plural. Such forms begin to occur in the experimental data at 3;2 (e.g., tíx-i 'wall-MASC:NOM:PL', tíx-us 'wall-MASC:ACC:PL').

As found with the category of number, both the observational and experimental data strongly suggest that case is first marked on the noun stem

and that, in the earliest stage of inflectional development, children do not rely on the determiner for distinguishing between nominative and accusative of masculine nouns. Two subjects studied at 2;0 and 2;11 seem to represent this initial stage of development: They neither mark the noun stem for nominative nor do they use articles. Since Spiros uses the definite article o only with masculine nouns marked for case (e.g., o lík-os 'the:MASC:NOM:SG wolf-MASC:NOM:SG'), distinction of nominative and accusative does not depend on the article. In spite of the fact that, at the same age as Spiros, Mairi marks only 50% of masculine nominative singular nouns, she succeeds in distinguishing both cases in nearly 90% of tokens by using the article with unmarked noun forms (e.g., o babá for o babás 'the daddy') so that her case system is more advanced than the boy's. As suggested by the experimental data, consistent marking of masculine stems for nominative singular is generally achieved between 3;4 and 3;9, but may occur as early as 2;3. In the observational data, appropriate article forms occur with at least 91% of nominative and accusative tokens by 2;4 and marking of noun stems for the nominative increases from 2;4 to 2;10.

At a time when the relation of possession is quite commonly expressed pronominally in the children's spontaneous speech, most often referring to the speaker as possessor, possessors expressed by nouns are only beginning to emerge. Thus, there are 86 tokens of possession expressed pronominally in Mairi's data at 1;10 as opposed to a single spontaneously used genitive noun phrase. Since the genitive expresses possessive and benefactive relations, genitive forms are nearly exclusively found with animate (mostly human) nouns in children's spontaneous speech. There is evidence from the

experimental study that, at least by 2;6, the possessive relation is marked on inanimate nouns as frequently as on human or other animate ones when answering the question tínos ine NP? 'whose is NP?'.

Because of considerable formal differences between the feminine gender on the one hand and the masculine and neuter gender on the other, the development of the genitive in feminine nouns will be described separately. When the possessive relation is first expressed by feminine nouns in two children's spontaneous speech at 1;10 and in the experimental data at 2;3, stems are either all marked by -s, but used without an article, or they are variably marked by -s, but the unmarked ones are accompanied by an oblique form ti of the definite article (e.g., mamás or ti mamá for tis mamá-s 'the:FEM:GEN:SG mummy-FEM:GEN:SG'). Since, in the experimental data, the definite article comes to be consistently used in the genitive singular much earlier than in either the accusative or the nominative, it is only in the former case that the form of the article may serve as a kind of rescue in the absence of case marking on the noun stem. Thus, two subjects aged 2;3 and 2;6, while never using articles with the nominative/accusative of feminine nouns, consistently employ the child oblique form ti for the genitive function, thereby opposing the genitive to an as yet undifferentiated nominative/accusative case of feminine nouns. Since the sparse use of the article with the nominative and accusative in the elicited data at hand may have resulted from the experimental setting, it seems more likely that, in children's spontaneous speech, the genitive and accusative cases of feminine nouns will at first overlap considerably (e.g., i mamá 'the:FEM:NOM:SG mummy', ti mamá 'the:FEM:ACC/GEN:SG'). Indications of this overlap also exist in the

experimental data where, between 2;6 and 3;4, the article form ti is consistently used with functionally genitive feminine nouns, whereas quite a number of noun stems may still be unmarked for case. It is only by 3;9 (there are no data between 3;4 and 3;9) that feminine nouns are consistently marked for genitive singular and are accompanied by the standard genitive form tis of the article. Between 2;6 and 3;4, nonstandard ti varies with tis. In spite of the overlap of the two oblique cases observed before 3;9, genitive and accusative function as separate cases from very early on. By 1;10 (spontaneous speech) or 2;3 (experimental data), most children use at least some feminine noun stems marked by -s for expressing possession.

Although genitive (singular) forms of masculine -os stems and neuter -i or -o stems emerge at the same time as genitive forms of feminine nouns, consistent marking on the noun (by -u) is achieved only by 4;10, i.e. one and a half years later than the corresponding marking of feminine nouns. Between 2;3 and 2;6, marking of the genitive by -u varies from 29% to 75% of tokens, between 3;2 and 3;4 from 60% to 71%, and between 3;9 and 4;6 from 64% to 90%. Although genitive marking on the stem precedes article use in the early stages (before 2;3), the genitive singular form tu of the masculine and neuter definite article is consistently used from 2;6 onwards, when it is also found with feminine nouns. In the neuter gender, there is a two-way contrast tu 'DEF.ART:GEN:SG' vs. to 'NOM/ACC:SG', whereas in the masculine gender tu 'DEF.ART:GEN:SG' forms a three-way contrast with o 'NOM:SG' and to(n) 'ACC:SG'. Therefore, consistent use of the article form tu will distinguish the genitive singular of neuter and masculine nouns, irrespective of genitive marking on the stem and article use with the other two cases. The late

development of genitive marking by -u on noun stems is due to input frequency. First, stems ending in -os are the only masculine nouns to mark the genitive by -u. They occur much less frequently than masculine stems ending in -as, -is, -es, or -us taken together, which use an unmarked noun form ending in the respective stem vowel for the genitive (e.g., o bab-ás 'the daddy:MASC:NOM:SG' vs. tu babá 'MASC:GEN:SG'). Second, neuter nouns are not often encountered in the genitive because the genitive of the highly frequent diminutives on -áki is avoided. Thus, children may be led to overgeneralize the earliest acquired pattern of an unmarked genitive noun form to all nouns accompanied by tu.

The genitive develops much later in the plural than in the singular. There is only one (unsuccessful) attempt in the spontaneous data at 2;10, but when children are obliged to express this case in the experimental situation, neuter stems marked by -on begin to appear from 3;2 on (e.g., to álogho 'the horse:NEUT:NOM/ACC:SG', ton alóghon 'NEUT:GEN:PL'). The oldest subject not yet using them is aged 4;11. All children experience difficulties with the genitive plural at least through 6;5 (the oldest subject studied). The reasons for its late acquisition are low input frequency and complicated stress shift rules (Theophanopoulou-Kontou, 1973, p.41ff.; Mackridge, 1985, p.136f.). In the experimental setting, subjects most often decompose its grammatical complexity by expressing either the genitive (singular) or the plural (accusative) or a mixture of both (e.g., tu péfk-u 'the:NEUT:GEN:SG pine.tree-NEUT:GEN:SG', tus psarádhes 'the:MASC:ACC:PL fishermen:MASC:ACC:PL', tu vódhi-a 'the:NEUT:GEN:SG cow-NEUT:NOM/ACC:PL'). The problem of expressing the genitive plural is thus

solved by employing better known (and eventually earlier acquired "old") forms to express a new notion (Theophanopoulou-Kontou, 1973), at the same time avoiding the prosodic difficulties mentioned. The number of such substitutes only gradually diminishes in the course of the sixth year of life. All subjects aged 4;10 to 6;2 were also found to follow an avoidance strategy, using prepositional phrases in which the possessive relation is expressed by a locative construction, as in apó tus skílus 'of/from the dogs' or s-tus skílus 'to-the dogs' (on the relation of locative and possessive see Lyons, 1968, p.388ff.), or by orientating themselves to the possessum and expressing the "possessor" as an attribute (e.g., to spíti me tis dhío ghatúles 'the house with the two cats'). Both the strategy of decomposition and replacement of the genitive plural by prepositional phrases are also observed in children's spontaneous narrative discourse through the early school years (Stephany, in prep.).

Summarizing the development of number and case inflection of the Greek noun, it can be said that number distinctions develop earlier and faster than the more abstract case distinctions. With the exception of rarer stem types (probably restricted to experimental data), the unmarked nominative/accusative case forms of neuter, feminine, and certain masculine nouns are marked for plural in 97% of tokens between 1;9 and 2;6 and consistently so by all subjects from 2;9 onward. Although case distinctions of nouns have emerged by 1;10 with some children, they may appear up to nine months later than number distinctions with others. Besides, case is much less often marked on the noun than number, and percentages of marked case forms grow slowly. While, by 2;6, nouns are consistently marked for number, consistent marking of singular nouns for nominative and genitive is achieved

more than one or even two years later. Preceding consistent marking, the genitive singular of feminine, masculine, or neuter stems and the nominative singular of masculine nouns is marked in 17% to 85% of the respective noun tokens well into the first half of the fourth year. In spite of the fact that, in the absence of case or number marking on the noun stem, children generally do not seem to make any endeavor to express these categories by the determiner, article use plays a considerable role in distinguishing nominative and genitive singular from the accusative. The role of the determiner in distinguishing plural from singular forms is marginal, because number has come to be consistently marked on the noun stem by the time articles are used consistently (at 2;6). Since the masculine nominative singular form o of the definite article is consistently used by 2;3 and the neuter/masculine genitive singular form tu by 2;6, case distinctions with these noun classes are all in all consistently signaled in the children's speech as early as number distinctions. In spite of the fact that the feminine genitive and accusative singular of the definite article overlap in the general oblique form ti used in most instances through the first half of the fourth year, the genitive function in most instances emanates from context.

Despite the much higher frequency of the nominative-accusative distinction of nouns as compared to the genitive-accusative distinction in the children's spontaneous speech, nothing contradicts the hypothesis that the children's earliest noun forms, unmarked for case, develop immediately into nominative and accusative forms on the one hand and into genitive and accusative on the other. Evidence comes from the fact that children either do not yet mark case at all or variably distinguish between the three cases (of certain stem types).

Due to the dependence of case inflection on gender, casemarking establishes gender distinctions. Thus, the nominative singular ending -ς of masculine nouns distinguishes the masculine gender from feminine and neuter, while the genitive singular ending -ς separates feminine nouns from the other two genders; finally, genitive singular forms of neuters and certain masculines are distinguished from feminines by final -υ (also see Theophanopoulou-Kontou, 1973, p.27).

Distinction of nominative and accusative may appear as a milestone in Greek language acquisition, offering the possibility of morphologically marking the core syntactic functions of subject and object, which are not expressed by word order either in standard or child Greek. In the longitudinal data, there is no evidence, however, of a relationship between the emergence of casemarking and sentences expressing both subject and object, as hypothesized by Theophanopoulou-Kontou (1973, p.27). It must not be forgotten that, although feminine and masculine nouns distinguish nominative and accusative by the definite article, only masculine nouns distinguish the two cases by stem forms and that, between 1;10 and 2;10, masculine nouns amount to merely 14% of noun tokens on average. Even though both of these cases are formally distinguished (partially by the definite article) from early on, what is relevant for the distinction of subject and object in child Greek is the semantic category of animacy rather than the grammatical category of case. As is common in Indo-European languages, MG gender is partially based on animacy, with an ensuing interdependence of case and gender (Lyons, 1968, p.293f.) especially noticeable in early child Greek. Thus, 81% of accusative noun tokens on average are inanimate in the three periods of observation,

whereas 62% of the respective nominative tokens are animate. In sentences in which both subject and object are expressed by nouns, 79% of subjects are animate on average (N = 43) and all but one object (N = 25) inanimate. There is not a single example of ambiguity to be attributed to arguments not marked for nominative or accusative. Correspondence of gender and animacy is especially pronounced in the use of the nominative and accusative by Mairi at 1;10. While nearly 80% of her spontaneously used masculine or feminine definite noun phrases (N = 200 tokens) are nominatives, 69% (N = 144) of the corresponding neuter phrases function as accusatives. These percentages closely correspond to those of animate and inanimate nouns, 86% and 70% of which are used in the nominative and accusative, respectively. In spite of this, gender is strongly semantically based only found in [+human] lexemes in Mairi's data. At 1;10, 79% of these are either masculine or feminine (N = 19). However, non-human animate nouns comprise 82% of neuter animal names (N = 11) and 43% of inanimate nouns are feminine (36%) or masculine (7%) (N = 69). Also, Mairi does not prefer to use lexemes with semantically based gender. In child language as well as in standard MG, gender classes are therefore predominantly formal noun classes underlying case and number inflection.

Further insight into the young learners' attempts to come to terms with the intricacies of noun morphology of the inflectional language they are acquiring may be gained by the study of incorrectly inflected forms. Relevant errors concern marked forms showing traces of being explicitly derived from unmarked noun forms as well as overgeneralization of certain parts of inflectional patterns to other paradigms (analogical formations). Restricted

experience with language and ensuing limits of inflectional knowledge are most likely to become evident when, in an experimental situation, learners are obliged to express a given category of a given noun. The strain of such a situation may also, to a certain extent, cause artificial linguistic behavior, however. Thus, Theophanopoulou-Kontou (1973) found that, in the picture test she administered, some children created inflectional forms by analogy or "overgeneralization," whereas the same children used standard forms in free conversation with her (e.g., at 6;4, vátrax-os 'frog-MASC:NOM:SG', vátrax-es instead of vátrax-i 'NOM:PL'). Agreement errors occurring in the observational data are discussed in sections 2.2.2.2 and 2.2.2.3.

What is most characteristic of spontaneous child Greek is underdifferentiation of grammatical categories rather than use of incorrect inflectional forms. Thus, frequent use of the unmarked accusative singular of masculine -o stems in both nominative and accusative contexts combined with reduction of the masculine accusative singular definite article ton to to and often o, results in gender underdifferentiation (e.g., o kílo for o skílos 'the dog:MASC' and o kapélo for to kapélo 'the hat:NEUT') which in turn may lead to confusion of masculine and neuter -o stems (Janna, 2;10, pu íne to dhóm-o? 'where is the way-NEUT:NOM/ACC:SG?' for pu íne o dhróm-os? 'way-MASC:NOM:SG'). In spite of the fact that overgeneralization and explicit derivation of inflectional forms very rarely occur in the children's spontaneous speech (at least until 2;10, when observation ends) and are not very frequent in the experimental data either, some of these errors are theoretically interesting since they not only point to underdifferentiation, but also to overdifferentiation, i.e. to the children's spontaneous creation of grammatical patterns.

In both the observational and the experimental data, there is evidence of the derivation of plural forms from unmarked singular nouns forms when children fail to comply with the glide-formation rule (eventually accompanied by palatalization of the preceding consonant and subsequent loss of the glide) applying in the plural of neuter stems on -i. Thus, instead of pronouncing the plural form spit-áki-a 'house-DIM:NEUT-PL' [spitákja], children may say [spitákia]. With only one girl of 3;4 in the experimental study, this type of explicit marking of the plural by simply adding -a to the full singular form may be called a "strategy," however, since her eleven plural forms of -i neuters all end in [-ia]. In the other children's data, such plural forms either do not occur at all or only marginally so. Among the numerous neuter plural (and genitive) forms in which sandhi rules are observed, there is only one more example of a form on [-ia] (at 3;2) in all the experimental data. In the observational data at 1;10 and 2;4, phonetically correct forms in which sandhi rules are observed by far outnumber incorrect ones. There are also a few overextensions to neuters ending in -i of the very common MG rule deleting the first of two consecutive vowels (e.g., papútsi-a 'shoe-NEUT:NOM/ACC:PL' pronounced [papútsa] instead of [papútsja]) (Theophanopoulou-Kontou, 1973, p.35).

Certain errors are probably better explained by "gestalt" characteristics of inflectional forms rather than by morphological composition (Bybee and Slobin, 1982). While the standard plural forms of neuter -o and -i stems ending in -a occur from early on (e.g., to moró 'the baby:SG', ta morá 'PL'), neuter singular forms ending in -ma, which are less frequent than the former stem

types and resemble neuter plural forms, are quite often not pluralized in the experimental situation and used for both numbers (4;3, to fóema 'the dress:SG', ta fóema 'PL' instead of to fórema, ta forémata). "Gestalt" characteristics may also lead to gender confusion. The feminine singular of the diminutive katsik-úla 'goat-DIM:FEM:NOM/ACC:SG' resembles neuter nominative/accusative plural forms like ta kotópula 'the chickens'. Mairi (2;4) therefore uses this form with the neuter plural of the definite article ta to express plurality. Since most nouns ending in -os are masculine, with their accusative singular form ending in -o, some -os neuters are reinterpreted as -o neuters by a child of 4;6, and their plural forms are accordingly made to end in -a instead of -i (e.g., ta dhása instead of ta dhási 'the forests' from to dhás-os 'the wood-NEUT:NOM/ACC:SG' occurring in addition to correct stíth-os 'chest-NEUT:NOM/ACC:SG', stíth-i 'NEUT:NOM/ACC:PL').

Other errors are cases of inflectional "imperialism" (Slobin, 1968) demonstrating children's tendency to make noun forms conform to the inflectional patterns of the more frequent stem types within or across genders. Since, in child Greek, this tendency is not only very limited but based on several inflectional models, it could be called inflectional "regionalism". An example is Maria's transfer of a masculine stem from the -u class to the more frequent -o class (2;10, o bapúo for (incorrect) o *bapúos instead of o papús 'the grandfather'). In the experimental situation, two children aged 4;1 and 6;4 overgeneralize the nominative/accusative plural ending -es common to feminine and masculine stem types, with the exception of masculine -os stems, to the latter type (e.g., aetés 'kite:NOM/ACC:PL' instead of aetí 'NOM:PL', from aet-ós 'kite-MASC:NOM:SG'). It must be stressed, however, that both

children use correct plural forms of the -os stem type (e.g., vátraxi 'frogs') in addition to analogical formations and that one of them overgeneralizes the plural ending -es in the experimental situation without doing so in free conversation.

By misinterpreting the unmarked feminine form maimú 'monkey' as a masculine stem (in analogy to, e.g., papú 'grandfather:MASC:ACC:SG') and creating the marked masculine nominative singular form *maimús in place of the feminine maimú 'monkey' which she normally uses, Janna proves her knowledge of nominative singular marking of masculine stems (example 4).

(4) Janna, 2;4
aft-ós íne mam-ús.
this-MASC:NOM:SG is monkey-MASC:NOM:SG
'This is a monkey.'
for aft-í íne maimú
this-FEM:NOM:SG is monkey:FEM:NOM:SG

A case of gender-based "regularization" is found in the experimental data of a child aged 3;2 who overgeneralizes the accusative plural ending -us, restricted to masculine -os stems, to -as stems, and accordingly distinguishes between the accusative plural of masculines, ending in -us throughout (instead of -us for -os stems and -es for the rest), and of feminines ending in -es (Theophanopoulou-Kontou, 1973, p.34). Another subject of the experimental study, aged 5;3, overextends the accusative plural -us of masculine -os stems to -is stems, thereby "overdifferentiating" nominative and accusative in the

plural of -is stems (e.g., fráxt-is 'fence-MASC:NOM:SG', fráxt-es 'NOM:PL', fráxt-us 'ACC:PL' instead of fráxt-es 'NOM/ACC:PL', in analogy to aet-ós 'kite-MASC:NOM:SG', aet-í 'NOM:PL', aet-ús 'ACC:PL'). Use of some overgeneralized -us forms in a nominative context by the same child possibly points to the establishment of a gender contrast (MASC:NOM/ACC:PL -us vs. FEM:NOM/ACC:PL -es) by abolition of the case contrast of -os stems.

Overgeneralization of epenthetic dh from so-called imparisyllabic masculine and feminine stems (e.g., jajá 'granny:FEM:NOM/ACC:SG', jajádhes 'NOM/ACC:PL') to parisyllabic stems only occurs with two children studied in their seventh year. One of them generalizes the extension to all feminines in -á (e.g., foljádhes instead of foljés 'nests' in analogy to jajádhes 'grannies').[6] The other one exhibits a noticeable tendency to generalize -dhes plural forms to [+human] masculines ending in -as or -is, thus establishing an inflectional contrast between human and non-human masculine nouns absent from the standard language (e.g., filakádhes instead of fílakes 'guardians', but [-human] kókores 'cocks') (Theophanopoulou-Kontou, 1973, p.37).

Insert TABLE 8

The strategies children use for solving the problem of nominal inflection exhibit individual variation. The following attempt to determine their achievements at various ages therefore represents an idealization of the empirical findings. In the preinflectional stage, MG noun forms are unmarked

for number and case, and gender differences are not yet explicit (Table 8). In the beginning of inflectional development, such unmarked noun forms first develop a number difference paired with a gender difference of neuters and feminines (and eventually masculines). Case differences between unmarked singular accusative forms and the marked nominative of masculine stems as well as the genitive of the three genders may either develop later than or simultaneously with number distinctions. With certain children, development of number and case oppositions represent different aspects of the development of nominal inflection rather than distinct stages of development. By the end of the fourth or fifth year, all inflectional categories of the Greek noun have emerged. The following two and a half or, more probably, eight years are characterized by mainly correct use of the most common forms of the "diptoton" and "triptoton" systems (nouns contrasting between two and three cases, respectively; see Kourmoulis, 1969; Theophanopoulou-Kontou, 1973, p.60f.) and hesitations and errors with less common ones, especially under the strain of an experimental situation. Since errors testifying to the derivation of certain inflectional forms from unmarked ones and to analogy occur from the very beginning through the end of inflectional development, there is no "stage of overgeneralizations" to be found in the development of MG nominal (or verbal) inflection (Stephany, 1985; 1989).

2.2.2.2. Adjectives

At 1;10, the children of the observational study use adjectives of the most frequent -os class in the neuter nominative/accusative singular form ending in -o, often correctly referring to neuter nouns or pronouns. Adjective forms with which Mairi seems most at ease are the neuter forms of kaló 'good' and kakó

'bad' referring to pedhí 'child:NEUT:NOM/ACC:SG' (or pedh-áki 'child-DIM:NEUT:NOM/ACC:SG') and the feminine form kalí 'good' referring to man-úla 'mummy-DIM:FEM:NOM/ACC:SG' or thía 'aunt:FEM:NOM/ACC:SG'. Mairi also uses a few neuter nominative/accusative plural forms agreeing with their referents (e.g., meghála záda for meghál-a dhóndi-a 'big-NEUT:NOM/ACC:PL teeth-NEUT:NOM/ACC:PL'). Examples such as these may be taken as evidence that gender and number inflection of the adjective has begun to develop. Although some neuter plural forms occur in Mairi's data at 1;10, the only well established adjective form is the nominative/accusative neuter singular, which is also overused with nominative singular masculine referent nouns (e.g., o meghálo pígho instead of o meghálos pírghos 'the big tower').

With the other children of the observational study, evidence of gender and number inflection of the adjective is only found at 2;4. Mairi is the first of three children to distinguish case forms at 2;4 when adjective forms ending in -os refer to masculine nominative singular nouns (e.g., meghál-os íne 'big-MASC:NOM:SG is', referring to kív-os 'block-MASC:NOM:SG'). The other two children use different case forms only by 2;10. Before that time, adjectives exclusively refer to neuter and feminine singular or neuter plural nouns, which do not distinguish between nominative and accusative (examples 5).

(5) Maria 2;4

(a) (e)na meghál-o (s)píti
a:NEUT:NOM/ACC:SG big-NEUT:NOM/ACC:SG
house:NEUT:NOM/ACC:SG

(b) esí íse meghál-i
you are big-FEM:NOM:SG

(c) edhó éxi meghál-a dhéd(r)-a.
here it.has big-NEUT:ACC:PL tree-NEUT:ACC:PL
'There are big trees over here.'

By 2;10, the three genders of adjectives are in use and at least two adjectives occur in more than one inflectional form with each child. While Mairi uses many more adjectives in the neuter than in the other two genders, the three genders are almost evenly distributed across adjective types in Janna's and Maria's speech. Genitive forms do not yet occur. At 2;4, Mairi frequently uses the vocative kal-é 'good-MASC:VOC:SG' as a form of address.

Although most adjective tokens agree with their referents in gender, number, and case, there is evidence that, at least by 2;10, Mairi and Janna explicitly make the adjective agree with its referent noun when they transform the bahuvrihi kokin-o-skuf-ítsa 'red-CONN-cap-DIM:FEM:NOM:SG' (= 'Red Riding Hood') into the attributive noun phrase i kókin-i skuf-ítsa 'the:FEM:NOM:SG red-FEM:NOM:SG cap-DIM:FEM:NOM:SG' (= 'the little red cap'). Similarly, Mairi analyzes the compound palj-ó-lik-e 'bad-CONN-wolf-MASC:VOC:SG' (= 'bad wolf') as palj-ó lík-o 'old-MASC:OBL:SG wolf-MASC:OBL:SG' (= 'old wolf').[7] While, by 2;10, attributive adjectives are correctly inflected, certain agreement errors remain with predicatively used adjectives (example 6). Since the referents of predicative adjectives are most

often part of the linguistic or extralinguistic context, such errors may be interpreted as evidence for the proximity principle as against the hierarchical principle governing agreement (Ingram, 1989, p.67).

(6) Maria 2;10
i mamá su íne kal-ó (instead of kal-í 'good-FEM:NOM:SG')
the:FEM:NOM:SG mummy:FEM:NOM:SG of.you is
good-NEUT:NOM:SG
'Your mummy is kind.'

While, up to 2;10, synthetic comparative or superlative forms do not yet occur, there is an analytic comparative form in Janna's data at 2;4 (pjo meghál-o 'more big-NEUT:NOM/ACC:SG') and the three children use the analytic absolute superlative (Maria, 2;4, polí dhískol-o íne 'very difficult-NEUT:NOM/ACC:SG is').

2.2.2.3. Determiners

Reflecting the proportions of the standard language, the definite article occurs much more frequently than the indefinite article in the speech of all children in the observational as well as the experimental data. Thus, 87% to 95% of article tokens (N = 773) occurring in Mairi's spontaneous speech from 1;10 to 2;10 are definite. In spite of this, the less strongly grammaticalized indefinite article is nearly always used where contextually required in the observational data, while its strongly grammaticalized definite counterpart is at first most often lacking. There is no trace of the definite article to be found in 79% (N = 43) and 87% (N = 76) of context tokens in which it is grammatically required in

Janna's and Spiros' period I data, respectively. It is interesting to observe that, between 1;9,2 and 1;9,11, the boy's use of the definite article rises from 13% to 47% (N = 51). Mairi, the linguistically most advanced of the three children observed at 1;10, already puts the definite article in 75% of noun phrase tokens (N = 395). Use of the definite article has dramatically increased by 2;4 with Janna, attaining 90% of tokens (N = 60). The corresponding percentages for the other two children amount to 86% (N = 209) for Mairi and 69% (N = 45) for Maria. By 2;10, the definite article is omitted by Janna in merely 3% of noun phrases (N = 129) and in 10% of tokens by Mairi and Maria (N = 250 and 70, respectively). The children of the experimental study use the definite article with at least some nouns from 2;3 on and, a month later, there are instances of the article in all singular case forms of all genders. Fourteen of the twenty subjects studied up to 6;5 tend to employ the definite article more frequently with accusative than with nominative singular (or plural) nouns, a tendency not to be found in the observational data.[8]

In spite of the fact that use of the definite article in the experimental data may have been influenced by the experimental set-up, these data do give an insight into its development. The youngest subject (2;0) participating in the picture test does not yet use articles with her singular or plural noun forms and her speech may thus be taken to represent the earliest stage in the acquisition of the Greek noun phrase. There are phonetic traces of the definite article in 16% of noun tokens requiring this category in Janna's (observational) data at 1;10 (N = 43). In such nominal expressions, the article is part of an unanalyzed form (e.g., teténo for to tréno 'the train'; to kaló 'the good' and t-álo 'the-other'). In Spiros' speech at 1;9,2, such traces, occurring in 13% of contexts in which

the definite article is grammatically required, are not amalgamated with the noun, but seem to be a kind of phonetic placeholder for the article (e.g., láli m mamá li # típa for na to vghál-i i mamá apó tin trípa 'MOD.PTL it remove:PFV-NONPAST:3SG the:FEM:NOM:SG mummy from the:FEM:ACC:SG hole' (= 'Mummy shall take it out of the hole')). Only nine days later, different grammatical forms of the definite article appear in 47% of such contexts; the most frequent of them are masculine and feminine nominative singular (o and i). It is interesting to compare the use of the masculine nominative singular definite article to that of its feminine counterpart: While the former correctly occurs with all tokens of the two lexemes with which it is used, o spíros 'the Spiros' (8 tokens) and o líkos 'the wolf' (3 tokens), the latter varies with zero in 40% of the tokens of seven different lexemes. At a point of development where the definite article is just emerging, frequently encountered or used noun phrases with important or impressive referents, such as the boy's first name or the name of the frightening wolf, seem to be the first to be standardly expressed.

Mairi, at the same age as Spiros, not only omits the definite article less often, but correctly employs six different forms in 85% of the respective tokens. Nearly 75% of article tokens are masculine or feminine nominative singular and neuter nominative/accusative singular (o and i 43%; to 31%); the neuter nominative/accusative plural ta amounts to 18.5%, while masculine and feminine accusative singular forms (to(n) and ti(n)) only total 5% (N = 295). There is merely one example of the masculine or neuter genitive singular form tu. The homophonous feminine genitive singular and accusative plural forms tis are reduced to nonstandard i or ti in the few instances in which they occur

(e.g., i méris for tis méri-s 'the:FEM:GEN:SG Mary-FEM:GEN:SG' (= 'Mary's'), ólis ti rózis for óles tis ródhes 'all the wheels'). Plural article forms first become productive in the neuter gender. In order to avoid the unfamiliar feminine plural of the article in example (7), Mairi makes the noun agree with the article by replacing an augmentative feminine plural noun by the neuter simplex.

(7) Mairi 1;10
ki ta pozáres for ekí tis podh-ár-es
there the:NEUT:ACC:PL (for FEM:ACC:PL) feet-AUG-FEM:PL
adjusted to ki ta pója su for ekí ta pódhj-a su
there the:NEUT:ACC:PL feet-NEUT:ACC:PL you:GEN:SG
'There your feet!'

A detailed examination of constructions in which articles are lacking or not sheds light on a curious asymmetry in Mairi's omissions of the definite article with 40% of feminine nominative singular nouns (N = 73) as compared to 18% of the respective masculine nouns (N = 84). However, her utterances containing masculine nouns at 1;10 represent much less diverse constructions than those with feminine nouns. Use of the article thus seems to be traded for syntactic complexity. In addition, in quite a few examples, the definite article of the object noun phrase seems to be considered superfluous due to the presence of a left dislocated third person pronoun formally identical to the article (example 8). This illustrates use of pronouns preceding determiners (Maratsos, 1979, p.231).

(8) Mairi 1;10

to píe i mamá # dhatilídhi for

to pírc i mamá to dhaxtilídhi

it took the mummy the ring

'Mummy took the ring away.'

Spontaneous utterances containing entirely correct masculine or feminine accusative noun phrases comprising a definite article are very rare in Mairi's speech at 1;10. Such utterances are all verbless and merely consist of a noun phrase or a prepositional phrase. Compared with this, objects constructed with verbs are usually expressed by a bare noun. The accusative noun phrase is never quite correctly expressed in any of the very infrequent examples of this type: Either just the article is correctly marked for case (example 9a) or it is omitted and furnished in a separate utterance (example 9b).

(9) Mairi 1;10

(a) a taís-o to písik-os?

MOD.PTL feed:PFV-NONPAST:1SG the:MASC:ACC:SG

monkey-MASC:NOM:SG

for na taís-o ton píthik-o?

MOD.PTL feed:PFV-NONPAST:1SG the:MASC:ACC:SG

monkey-MASC:ACC:SG

'Shall I feed the monkey?'

(b) sel akúza. tin akúza.

for thél-o tin arkúdha.

want:IPFV-NONPAST:1SG the:FEM:ACC:SG bear:FEM:ACC:SG

'I want the bear.'

In the observational data, the plural article remains more or less limited to the neuter nominative/accusative form ta through 2;10. Due to the experimental set-up, it is difficult to gain insight into its further development from the experimental data. While there are some examples of ta in both the nominative and accusative functions between 2;6 and 4;1 and more of them from 4;6 on, the masculine and feminine nominative plural i is absent from 18 of the 21 subjects' data and is frequently used by only one child aged 5;10 (but not at all by the six-year-olds). In contrast, the masculine accusative plural tus occurs more or less frequently from 4;3 on and the corresponding feminine tis from 4;10 on (tis is rendered by nonstandard ti until 3;4 and varies with tis until at least 4;10). As mentioned above, children have problems with the genitive plural well into the early school years. The standard genitive plural form ton of the definite article first appears with neuter nouns at 3;2 (nonstandardly varying with to), with masculines at 4;3, and with feminines at 5;8. In the substitute genitive singular or accusative plural forms occurring in the experimental data, the article correctly agrees with gender, number, and case of the noun.

Errors with article forms, other than omission in obligatory contexts, are rare in the observational data. In Spiros' data at 1;10, article gender is mostly correct and some apparent gender errors are probably best explained by vowel harmony. Although there is no clear evidence for case distinctions in the article, the nominative forms which do occur are adequately used. The boy's

productive subsystem of the definite article is restricted to the nominative singular of the three genders (o, i, to). Mairi's system of grammatical categories of the definite article at 1;10 is more advanced: Besides the distinction of the three genders in the nominative singular and of the feminine gender from a common masculine and neuter in the accusative singular, there is a number contrast in the nominative/accusative of the neuter gender and a case distinction in the masculine and feminine singular. Masculine and feminine accusative singular forms of the definite article, marked by to and ti(n), respectively, are nearly always distinguished from the corresponding nominative forms o and i. Since Mairi nearly consistently differentiates between nominative and accusative in the masculine singular, instances of nonstandard o instead of to in 18% of neuter accusative singular tokens (N = 33) cannot be interpreted as gender errors, but must be attributed to phonological reasons. Also, to is correctly used in the eight examples of neuter nominative singular forms. In the few examples of a functional genitive singular, Mairi uses the oblique article form to instead of tu with unmarked masculine noun forms, and either ti or i (instead of tis) with feminine nouns some of which are marked for the genitive singular by -s.

By 2;4, the gender and number distinctions found in Mairi's system of the definite article at 1;10 have also been achieved by the other two girls of the observational study. The few instances in which Maria combines neuter nominative singular nouns with o (or a) instead of to are not gender errors since it is evident from other uses of the same nouns that the girl knows their gender. Also, Maria never misuses to with masculine nominative singular nouns. Much as Mairi at 1;10, Maria and Janna distinguish between the

nominative and an oblique case in the singular of the masculine and feminine gender. While the oblique form is limited to standard accusative funcitons in Janna's speech, Maria also uses it for the genitive function in the feminine gender. While Janna and Maria strictly distinguish between the nominative and accusative forms of the masculine singular definite article marked by standard o and ton (realized as ton or to), respectively, the same cannot be said of the feminine gender: While Janna correctly uses two standard allomorphs (tin or ti) for the accusative throughout, almost half of her corresponding nominative tokens also have ti (or si) instead of standard i. The nominative is thus distinguished from the accusative in only one third of feminine singular noun tokens. The oblique form ti (instead of tis) also occurs in two instances of the feminine accusative plural. As opposed to Janna, Maria always marks the feminine nominative singular by standard i, while her infrequent uses of the accusative or genitive are as likely to be marked by the oblique form ti as by the reduced form i (instead of standard tin, ti for the accusative and tis for the genitive). As far as the neuter gender is concerned, Janna invariably marks the nominative/accusative singular by to and the plural by ta. These forms are also used by Maria, but singular to varies with o and a and plural ta with a. In spite of these nonstandard variations of article forms to be observed in both Janna's and Maria's speech at 2;4, gender distinction corresponds to the standard language in both the nominative and accusative singular with Janna and nearly so with Maria. In the masculine and feminine gender, distinction of an oblique case from the nominative is well under way. Plural is mainly limited to the neuter nominative/accusative. Compared to Maria and Janna, there is much more variation in the forms of the definite article used by Mairi at 2;4, but her speech comprises instances of both feminine and masculine genitive singular

forms and thus contains more categories than that of the other two girls. In spite of nonstandard variation of article forms, accusative singular forms of the definite article are distinguished from the nominative in 83% of tokens in the masculine gender and in 91% tokens in the feminine gender (N = 24 and 23, respectively). Since in the feminine gender, the oblique form ti is used for both the accusative and the genitive singular and the genitive is marked by -s on the noun in four of six instances only, the two oblique cases formally overlap in 74% of instances of Mairi's speech (N = 27). With the three girls, plural forms continue to be mainly restricted to the neuter gender at 2;4.

By 2;10, the three children give evidence of distinguishing the genitive singular from the accusative in the feminine gender and Janna and Mairi also do so for the masculine thus arriving at a three-way distinction of case. The three girls have begun to use the standard form tis for the feminine genitive singular and both Mairi and Janna also correctly employ this form in the feminine accusative plural. With the exception of two tokens, forms of the definite article are standard in Janna's data (N = 122). In the singular, she formally distinguishes three genders in the nominative and two each in the accusative (masculine/neuter to vs. feminine ti, tin) and genitive (masculine tu vs. feminine tis). Besides the neuter nominative/accusative plural ta, the feminine nominative/accusative tis has also come to be used. Mairi's system of definite article forms comprises the same categories as Janna's, but phonetically caused nonstandard variation remains in the singular oblique cases. In the plural, the "old form" ta is overused for the feminine nominative plural (instead of standard i) and in an instance of a functional neuter genitive

plural. There are not more than two gender errors in Mairi's data at 2;10, one of which is immediately followed by self-correction (o // to pistóli 'the:MASC:NOM:SG the:NEUT:NOM:SG pistol:NEUT:NOM:SG').

After the quite detailed presentation of the development of inflection of the definite article in four children's observational data between 1;10 and 2;10, a few general remarks are in order (Table 9). Once the children start using the definite article productively, the three genders emerge simultaneously in the nominative and accusative singular with almost no gender errors. Since nouns are used without articles in the preinflectional stage and definite articles are widely lacking in the early inflectional stage, article-noun sequences cannot be mere amalgams. The fact that articles are sometimes used and sometimes omitted shows that they are not unanalyzable parts of the noun, but represent a marking the child has begun to master under certain conditions, such as syntactic simplicity and/or communicative importance. A further early development is the distinction of singular and plural in the unmarked nominative/accusative form of the neuter. Splitting of the feminine singular oblique form into accusative and genitive is a later development, as are masculine genitive singular and feminine accusative plural forms. At 2;10, one of the three children distinguishes the feminine nominative plural from the accusative, while a second only uses feminine accusative plural forms and a third remains restricted to the neuter plural. None of the three children has yet acquired the nominative and accusative masculine plural article forms i and tus. The genitive plural form ton does not occur either. Besides omission, the most common error is reduction of CV(C) definite article forms to CV or V resulting in gender and especially case underdifferentiation. On the whole,

gender and number forms of the definite article agree with the noun from the very beginning of productive use. The child system differs from the adult system more in the number of case/number distinctions than by agreement errors. These results of the development of the inflection of the definite article are confirmed by the experimental data in which, up to 3;4 or even 4;11, definite article forms may obey the canonical form (C)V (instead of standard (C)V or CV(C)) with an ensuing underdifferentiation of gender, case, and number. When children are urged to express genitive singular noun phrases, both masculine and neuter nouns are productively constructed with the standard definite article form tu and feminine ones with nonstandard ti instead of tis from 2;4 on. In the masculine singular, the children thus distinguish the three article forms nominative o, genitive tu, and accusative to, but the phonologically determined allomorphy of the standard accusative form ton will only be mastered by 5;3 (but see Drachman & Malikouti-Drachman, 1973, p.108). The first instances of ton occur by 3;4 and are used with nouns beginning with a vowel. There are at first only two feminine singular article forms, nominative i and oblique ti covering both the accusative and genitive functions. When the standard genitive form tis first occurs between 3;2 and 3;9, the two oblique cases begin to be formally distinguished and ti becomes restricted to the accusative function. The development of the allomorphy of the feminine accusative tin parallels that of masculine ton.

Insert TABLE 9

In the preinflectional stage, in which nouns are unmarked for grammatical categories and the definite article is either completely missing, amalgamated with the noun stem in an assimilated form, or signalled by a vocalic phonetic placeholder, number, case and gender distinctions are not yet expressed. Although the category of number is the first to emerge when nouns begin to be inflected, the earliest noun forms to be accompanied by the definite article are singular forms of all three genders. Use of the strongly grammaticalized definite article is obligatory in more contexts in the singular than in the plural. Children are therefore more likely to encounter plural noun forms without an article than singular forms. Seemingly, at a point of development where the contrast of singular and plural forms of nouns is first established, attention is paid to a more standard rendering of the "old" singular forms by employing the definite article. Since definite articles are proclitics, CV forms are often reduced to their vowel in early child Greek. As a consequence, neither their nominative forms are at first reliably distinguished from the accusative forms (MASC o vs. to, FEM i vs. ti), nor the neuter gender from the masculine nominative singular (to vs. o). CVC forms of the definite article are in the beginning reduced to open syllables. At a time when, in the feminine singular, a two-way case distinction nominative/accusative vs. genitive is achieved by marking genitive forms by -s, distinction of three cases is arrived at with the help of the two-way distinction nominative i vs. oblique ti of the definite article (NOM: i + NOUN-0, ACC: ti + NOUN-0, GEN: ti + NOUN-s). Since the genitive singular occurs much more rarely than either the nominative and accusative, its masculine (and neuter) article form tu is not at first at the child's disposal and the oblique masculine form to is sometimes used instead. As stated above, acquisition of the standard allomorphy of the masculine and

feminine accusative singular forms ton and tin of the definite article (and of the third person clitic personal pronoun) is late and, accordingly, masculine and neuter gender overlap in the accusative singular for a long time. The same kind of underdifferentiation is also characteristic of adult speech, however. In child-directed speech at 1;10, three mothers tend to drop the final nasal in front of a stop, sometimes without voicing the latter. Therefore, more than half of the masculine accusative singular tokens of the definite article and clitic personal pronoun overlap with the corresponding neuter form and the form to amounts to more than 95% of ton and to tokens taken together (N = 493).

The only forms of the indefinite article productively used by Mairi at 1;10 are éna, used for the neuter nominative/accusative and the masculine accusative, and feminine nominative/accusative mía. It is only a year later that this two-form system is elaborated by two of the three girls into a three-form system by addition of the masculine nominative form énas. There is thus a three-way gender distinction in the nominative (énas 'MASC', mía 'FEM', and éna 'NEUT') and a two-way gender distinction (éna, mía) in the accusative instead of the adult three-way distinction (éna(n), mía, éna). The masculine/neuter and feminine genitive forms enós and mías occur neither in the observational nor the experimental data. In the experimental data, first tokens of éna and mía are found at 2;4 and 2;6, respectively. While, in the observational data, the form éna is only used for the accusative case of the masculine gender, the children experimentally studied overuse it for the nominative (instead of standard énas) through 4;1. The masculine accusative form énan and its allomorphy paralleling that of the masculine accusative singular definite article and the

clitic pronoun ton is a late acquisition and, between 5;3 and 5;5, énan still varies with éna.

Other determiners occurring in the observational data are the demonstratives aftós 'this, that', tútos 'this', and ekínos 'that', the quantifiers polís 'much' and líghos 'little' as well as the modifiers álos 'other' and tétios 'such'. Of these, only álos is used by the three children observed at 1;10 (Mairi, álo ghaidhur-áki ín(e) 'another donkey-DIM is' (= 'it's another donkey')). At 2;10, it is also used in definite noun phrases (Mairi, i ál-i fóki-a 'the:FEM:NOM:SG other-FEM:NOM:SG seal-FEM:NOM:SG'). Although all subjects use demonstratives mainly pronominally through 2;10, there are examples from Spiros at 1;10 where he employs aftós and tútos as determiners. But instead of using them with the definite article he immediately preposes them to the noun (e.g., túti típa for se tút-i tin trípa 'in this-FEM:ACC:SG the:FEM:ACC:SG hole:FEM:ACC:SG'). All the determiners mentioned occur in the accusative and nominative. With one exception from Mairi's speech at 2;10, plural forms are limited to the neuter gender. Rare agreement errors consist in overuse of the unmarked neuter/masculine accusative form ending in -o (Janna, 2;10, ál-o búb-is 'other-NEUT:NOM:SG Bubis-MASC:NOM:SG' varying with standard ál-os búb-is 'other-NEUT:MASC:SG Bubis-MASC:NOM:SG'(= 'another Bubis')).

2.2.2.4. Pronouns

Emphatic Personal Pronouns

Since MG does not require explicit subjects, subject pronouns only occur in emphatic or contrastive contexts. At 1;10, the first person nominative singular

emphatic pronoun eghó 'I' is used by the three children observed. With Spiros, "pronoun reversal" (Chiat, 1986) is the rule in non-initiating utterances. Since he never misuses the definite article with pronouns he distinguishes them from proper names, with which the definite article is obligatory in MG. Besides eghó, Mairi and Janna also use the second person nominative singular pronoun esí 'you', although much less frequently. At 1;10, the oblique forms eména 'me' and eséna 'you' only occur in Mairi's speech. Although she correctly uses both eghó and eména for speaker reference, she seems to consider the oblique form as a phonological variant alternating with reduplicated eghóegho for special emphasis. While eghó most often functions as agent, it is overused for the benefactive function (instead of eména) in one instance. At 2;4, Mairi correctly uses the first and second person singular nominative forms eghó and esí throughout, whereas both their oblique forms are still occasionally misused for expressing agents (óxi eséna besides óxi esí 'not you'). Both oblique eména 'me' and eséna 'you' also function as benefactive or patient. Maria, first observed at 2;4, only uses nominative forms of the first and second person singular and the first person plural (emís), whereas Janna contrasts case in the first person singular (eghó vs. eména) but does not yet use second person forms. By 2;10, first and second person singular nominative and oblique forms are correctly used by the three children. Plural forms remain limited to the first person nominative emís.

The third person emphatic pronoun is expressed by demonstratives in MG, mainly by aftós 'this.one, that.one', which is also most frequently used by the children. Only Janna nearly exclusively uses tútos 'this.one' at 1;10. Other third person emphatics occurring in the children's data are ekínos 'that.one',

káti 'something', kanénas 'no.one', and the deictic expression ná-tos 'there-he' (e.g., ná-tos o babás! 'there-he the daddy'(= 'there is daddy!'). From 1;10 to 2;10, third person emphatics occur much more frequently in the children's spontaneous speech than first or second person.

At 1;10, Janna prefers the neuter nominative/accusative singular form túto to aftó. Except for two neuter plural tokens of nátos (náta), only neuter singular forms occur. Although Mairi uses aftós in forms of the three genders, masculine and feminine forms are outnumbered by the neuter nominative/accusative singular aftó (93%, N = 133). The plural is limited to the neuter nominative/accusative aftá. The neuter singular aftó serves as an all-purpose deictic form, especially so in identifying contexts. Due to the pause occurring in example (10a), there is no agreement error here, since the neuter pronoun can be taken to refer to the semantically unspecific neuter noun prághma 'thing'. In other examples the pronoun agrees with the gender of the referent (10b). The utterance sequence (10c) is evidence that Mairi is aware of the fact that the masculine nominative singular ending is -s and that the pronoun agrees with its referent noun in case. Spiros' data exhibit a balanced distribution of singular forms of aftós and nátos in the three genders. This may in part be attributed to the fact that he not only places the pronoun postnominally in identifying contexts (11a), but also uses the demonstrative as a determiner (11b).

(10) Mairi 1;10

(a) ató íne # pigho(s?) for aft-ó íne # pírgh-os
this-MASC:NEUT:SG is tower-MASC:NOM:SG

'This is a tower.'

(b) a(ʃ)t-í pinái.
this-FEM:NOM:SG (= kúkl-a doll-FEM:NOM:SG) is.hungry
'She is hungry.'

(c) Mairi: nát o píthiko.
Mother: nátos o píthikos.
there.he the monkey
Mairi: náto píthikos. nátos.
'There is the monkey.'

(11) Spiros 1;10

(a) akúa atí for arkúdh-a íne aft-í
bear-FEM:NOM:SG is this-FEM:NOM:SG
'This is a bear.'

(b) a(ʃ)t-í i t(r)íp-a
this-FEM:NOM:SG the:FEM:NOM:SG hole-FEM:NOM:SG

By 2;4, also Janna has begun to distinguish the three genders in the masculine and feminine nominative singular of aftós, but the neuter singular remains her most frequent and best established form. Besides a few correct forms, there are errors with gender agreement in the masculine and feminine singular as well as with number agreement in the neuter (example 12a). Example (4), repeated as (12b) for convenience, proves that Janna is aware of gender agreement. In

addition to the nominative feminine and masculine singular forms aftí and aftós, the corresponding accusative forms aftín and aftón occur in Janna's data at 2;4. All of them function as nominatives, however. Aftín may represent an overgeneralization of the ending of the very common deictic form ná-tin 'there-she', but the final -n in both the masculine and feminine forms may also be due to katharevousa influence either from her parents both of whom are theologists and/or from church Greek.

(12) Janna 2;4

(a) s-aft-ó íne mamá ke aft-ó pul-ákj-a.
and-this-NEUT:NOM:SG is mummy and this
bird-DIM:NEUT-NOM:PL
for ke aft-í íne i mamá ke aft-á pul-ákj-a
and this-FEM:NOM:SG is the:FEM:NOM:SG
mummy:FEM:NOM:SG
and this-NEUT:NOM:PL bird-DIM:NEUT-NOM:PL
'And this is mummy and these are baby birds.'

(b) aft-ós íne mam-ús.
this-MASC:NOM:SG is monkey-MASC:NOM:SG
'This is a monkey.'
for aft-í íne maimú
this-FEM:NOM:SG is monkey:FEM:NOM:SG

The neuter singular form aftó remains predominant in Mairi's data at 2;4 and, with the exception of one feminine token, the plural is still restricted to this

gender. The child continues to struggle with gender agreement, occasionally misusing the neuter singular for the other two genders when the demonstrative precedes the copula in identifying contexts (example 13a), but never when it follows (example 13b). Masculine singular forms of aftós and ekínos only occur in the nominative, but are overused for the masculine and neuter accusative in two instances. - At 2;4, Maria nearly exclusively uses the neuter singular and plural forms aftó and aftá. Her system of third person emphatic pronouns is thus more restricted than that of the other two girls. In addition to the neuter singular of aftós, there is a feminine nominative singular token (afti) and a masculine genitive singular token kanenú (instead of kanenós) of kanénas 'no.one' formed by analogy to an immediately preceding pjan-ú 'who-MASC:GEN:SG' of her interlocutor. There are no agreement errors in Maria's use of the neuter singular and plural forms.

(13) Mairi 2;4

(a) aft-ó íne kiría for aft-í íne kiría.
this-NEUT:NOM:SG (for this-FEM:NOM:SG) is lady:FEM:NOM:SG
'This is a lady.'

(b) pírgh-os íne k-aft-ós.
tower-MASC:NOM:SG is and-this-MASC:NOM:SG
'This is a tower as well.'

At 2;10, use of the feminine and masculine nominative singular of aftós has risen to 25% of tokens (N = 106) in Mairi's data. There are no instances of the nominative masculine singular being overused for the accusative function, but

final -s is sometimes lacking in the nominative (aftó, instead of aftós). Plural forms of the three genders have begun to emerge and are appropriately used. Mairi experiences occasional difficulties with the number of the referent noun (14).

(14) Mairi 2;10
k-aft-í vátrax-os? (for vátrax-i 'frog-MASC:NOM:PL')
and-this-MASC:NOM:PL frog-MASC:NOM:SG
'Are these frogs as well?'

By 2;10, Janna's masculine and feminine forms aftón and aftíne have come to function as accusatives, but the feminine accusative is still used as a nominative in example (15a), perhaps for emphatic reasons (aftíne comprises three syllables as compared to two of the nominative form afti). Also, Janna does not always mark the masculine nominative singular by -s, even in contexts where the pronoun follows its correctly inflected antecedent noun (15b). Although she at times overuses the old all-purpose neuter singular aftó in plural contexts, the correct form aftá prevails. By 2;10, Maria's system of inflectional forms of aftós has developed to comprise one singular case form of each gender (aft-ós 'MASC:NOM:SG', aft-í 'FEM:NOM/ACC:SG', aft-ó 'NEUT:NOM/ACC:SG'). Plural forms remain restricted to the neuter gender and there are (almost) no agreement errors.

(15) Janna 2;10

(a) ke aft-íne (for aft-í FEM:NOM:SG) fov-ótane to lík-o.
and this-FEM:ACC:SG fear-IPFV:PAST:3SG the:MASC:ACC:SG

lion-MASC:ACC:SG

'She too was afraid of the lion.'

(b) o kinigh-ós íne aft-ó (for aft-ós MASC:NOM:SG)

the:MASC:NOM:SG hunter-MASC:NOM:SG is this-NEUT:NOM:SG

ke dhen íne o lík-os

and not is the wolf-MASC:NOM:SG

'This is the hunter and not the wolf.'

The foregoing observations on the development of person, number, gender, and case in the emphatic series of personal pronouns from 1;10 to 2;10 suggest the following overall development of these categories: Of the three persons, the third singular is the first to develop. First and second person emerge in the nominative singular, with the first person appearing earlier than the second and both preceding the first plural. Oblique accusative/genitive forms of first and second person singular imply emergence of their nominative forms; the case contrast appears in the first person before the second. Oblique first and second person singular forms may at first serve as phonological variants of the nominative. The implicational relations of the emergence of emphatic personal pronouns are represented in (16).

(16) (a) emís 'NOM:1PL' -> esí 'NOM:2SG' -> eghó 'NOM:1SG' -> 3SG

(b) eséna 'OBL:2SG' -> eména 'OBL:1SG' -> esí, eghó

The third person emphatic pronoun first appears in the unmarked nominative/accusative singular form and first develops a number contrast (Janna, 1;10; Maria, 2;4). Next, the three genders emerge in the nominative singular (Spiros and Mairi, 1;10; Janna and Maria, 2;4). Although errors occur, the children give evidence of being aware of gender and number agreement at 2;4. When the accusative is at first formally distinguished from the nominative singular in the masculine or feminine gender both case forms function as phonological variants (Mairi and Janna, 2;4). It is only in the third period of observation at 2;10 that Mairi and Janna use these forms with their standard functions. At this stage of development, number errors have become rare (Mairi and Janna) and gender distinctions begin to develop in the plural (Mairi). The overall developmental sequence of grammatical categories in the third person emphatic pronouns is number < gender < case ('<' = 'earlier than'). Agreement is acquired gradually and seems to be mastered earlier in anaphoric relations than in cataphoric ones.

Clitic Personal Pronouns

Already by 1;10, the three children's system of personal pronouns comprises accusative and genitive clitics in addition to emphatic pronouns. While all of them use them enclitically, proclitic pronouns only occur in Mairi's and Spiros' data. Enclitic personal pronouns thus seem to be used productivily before proclitics. While, at 1;10, Spiros will omit proclitic third person neuter accusative singular to in 91% of obligatory contexts (N = 34) (example 17a) or use a kind of phonetic placeholder (17b), he correctly employs to enclitically with imperative verb forms (17c) and uses the genitive form tu with nominals (17d). At the same age, Mairi omits the proclitic object pronoun to in merely

25% of instances. This point of development has not yet been reached by Maria at 2;4, when she still omits proclitic singular to or pural ta in 34% of instances (N = 35). While, Mairi and Janna use proclitic object pronouns in more than 90% of obligatory contexts (Mairi, N = 146) already by 2;4, Maria will reach a similar point of development only by 2;10. At that stage, there are no omissions of proclitics in Janna's speech at all (N = 50) and merely two in 219 tokens in Mairi's data. Because of the children's increased use of non-imperative (subjunctive and indicative) verb forms after 1;10, proclitic usage of clitic pronouns with verbs has risen to two thirds of instances by 2;4 and to at least 94% by 2;10.

(17) Spiros 1;10

(a) aník-i úla
open:PFV-NONPAST:3SG Ulla
for na to aníks-i i úla
MOD.PTL it open:PFV-NONPAST:3SG the Ulla
'Ulla shall open it.' (addressing Ulla)

(b) o klín-i # úla.
it close:IPFV-NONPAST:3SG Ulla
for na to klísi i úla
MOD.PTL it close:PFV-NONPAST:3SG the Ulla
'Ulla shall close it.' (addressing Ulla)

(c) pá(r)-to!
'Take it!'

(d) món-o tu
alone-NEUT:NOM:SG/MASC:ACC:SG he:MASC:GEN:SG
for món-os tu
alone-MASC:NOM:SG he:MASC:GEN:SG
'by himself' (referring to speaker)

The full inventory of accusative and genitive forms of clitic personal pronouns develops only gradually. The first form-function combinations to emerge seem to be third person neuter accusative singular to and first person genitive singular mu. While the number opposition also appears early, it is at first restricted to the third person neuter accusative (to vs. ta). Case, person, and gender do not yet contrast in this early subsystem of clitic personal pronouns. Productively used forms represent prototypic category coalitions, however. Thus, third person accusative neuter to refers to singular objects, ta to plural objects, and first person genitive mu to the speaker (benefactive, possessor).

When first observed at 1;10, Janna uses only two clitic personal pronouns productively, the third person singular neuter accusative to referring to objects and constructed with imperative verb forms and the first person singular genitive mu referring to the speaker and constructed with nominals. Although in addition to to (and ta) Spiros uses genitive forms of the three persons in the singular (mu 1SG, su 2SG, and tu MASC:3SG), pronoun reversal of first and second person is the rule in his speech at 1;10. Still, in turn-initiating utterances, mu seems to be productively used with imperative verb forms in a benefactive function referring to the speaker. The boy most often refers to

himself by the third person singular, however, and tu occurs most frequently as an enclitic of mónos 'alone' (example 17d). Mairi uses the first person singular genitive form mu both with verbs and nouns to express benefactive and possessor, respectively. Nevertheless, the first person is more firmly established in the latter function. Thus, she constructs sentences like (18) in which the agent referring to self is expressed in a third person singular verb form while the first person enclitic mu is used for the possessive function, but never vice versa.

(18) Mairi 1;10
é-xas-e to pirúni mu
AUGM-lost:PFV-PAST:3SG the fork me:GEN
for é-xas-a to pirúni mu
AUGM-lost:PFV-PAST:1SG
'I lost my fork.'

With verbs, the third person neuter accusative singular to is much more frequent than first or second person clitics. Proclitic use of genitive (mu, su) or accusative (me, se) forms of these pronouns with verb forms only occurs in imitations or reactive utterances. The formal difference of the accusative forms to (NEUT:SG) and ton (MASC:SG) is not yet functional: At 1;10, Mairi uses both of them to refer to neuter and masculine nouns and even, although more rarely, to feminine ones. They seem to be phonological variants, with ton being restricted to contexts of a following vowel. Thus, none of the three children observed at 1;10 has developed a gender contrast in the third person clitic personal pronouns. As stated above, at least as far as the missing

distinction between neuter and masculine gender is concerned, this seems to be a direct consequence of the input they receive.

There seem to be two possible paths for further development of the binary clitic system opposing the third person neuter accusative singular to to the first person genitive singular pronoun mu. By 2;4, the three children observed distinguish the singular from the plural in the neuter accusative (to vs. ta) as well as the genitive and accusative of the first person singular (mu vs. me). Janna has in addition added the second person singular (GEN su, ACC se), while Maria has developed the three genders of the third person instead (NEUT to, MASC ton, FEM tin). Mairi's data at 2;4 include both these achievements. The first plural genitive mas used proclitically functions as an ethic 'dative' in one example. Toward the end of the first half of their third year, the children thus have developed a number opposition in the unmarked third person neuter nominative/accusative clitic and either oppose the three genders in the third person accusative singular and/or distinguish between the three persons as well as the two oblique cases of the first (and second) singular. Although, with Janna, gender differentiation has seemingly not advanced from 1;10 to 2;4, it must be observed that she correctly restricts the use of both the neuter accusative singular to and plural ta to refer to neuter nouns. In addition, she has started using the masculine accusative singular ton, albeit as a phonological variant of the neuter to. At 2;4, third person clitics are restricted to the accusative case with the three children observed and the neuter accusative singular to is by far the most frequently employed clitic personal pronoun overall. In Mairi's data, use of to amounts to 69% of all clitic personal pronouns and to 79% of third person accusative tokens (N = 199). Since first

and second person pronouns refer to humans and thus to prototypical agents, the genitive is more frequent here than the accusative. At 2;4, Janna no longer restricts mu (and su) to enclitic use with imperative verb forms, but uses them proclitically with non-imperative ones. Mairi overuses the third neuter accusative singular form to for the plural in two instances and ta for the plural genitive (instead of tus) in another example. These errors are evidence that the "old form" to was originally unmarked for number and that third person accusative forms are in the beginning unmarked for case. The same applies to the first person singular: In three of the fifteen instances in which Mairi uses first person clitic pronouns at 2;4, she confounds me with mu in either direction (examples 19).

(19) Mairi 2;4

(a) áse-mu! for áse-me!
leave-me:GEN (for ACC)
'Leave me alone!'

(b) Mother: dhen tis kán-un (addressing Ulla)
not she:GEN do:IPFV-NONPAST:3PL
'They (= shoes) don't fit her.'
Mairi: me (for mu) kán-une.
me:ACC (for GEN) do:IPFV-NONPAST:3PL
'They fit me.'

With the exception of a single instance of the first person plural oblique form mas in Mairi's data, number contrast remains limited to the third person neuter

accusative at 2;10 with the three children observed. Although third person neuter accusative singular to continues to be the clitic personal pronoun most frequently used by both Maria and Mairi (60%, N = 82, and 55%, N = 224, respectively), the three children's data now contain instances of the second person singular in addition to the first. While Mairi goes on to use the genitive of both the first and second person singular mu and su much more often than the accusative forms me and se, the latter have become more frequent than the former in both Janna's and Maria's speech. The three children by now also distinguish gender in the third person singular. Accusative masculine ton and neuter to are no longer phonological variants but functionally distinct. While third person pronouns continue to be restricted to the accusative with both Janna and Maria (to, ton, tin), Mairi uses the masculine/neuter genitive singular form tu to refer to masculine nouns and the corresponding feminine form tis for feminine reference. Although the neuter and masculine accusative singular forms completely overlap in Maria's speech at 2;10, she has extended the use of to to more masculine nouns, not just those with an initial vowel. In Janna's and Mairi's data, there are a few examples of masculine ton, but use of to predominates for masculine reference. While Janna's two instances of substitution of plural ta for singular to are probably to be accounted for by vowel harmony (tá-klis-a 'them:NEUT close:PFV-PAST:1SG' for tó-klis-a 'it close:PFV-PAST:1SG', and tá-krips-a 'them:NEUT hide:PFV-PAST:1SG' for tó-krips-a 'it hide:PFV-PAST:1SG'), there is slight evidence that Mairi continues to overuse the "old" unmarked neuter singular to for both plural ta (one error in 19 neuter plural forms) and the genitive tu referring to a neuter noun (one instance). Since correct use of tu in reference to a masculine noun is limited to a single example, it cannot be decided whether Mairi is trying to

create a distinction between the neuter and masculine genitive singular (to vs. tu, instead of standard tu for both genders). Janna substitutes accusative me for genitive mu in one instance out of seventeen. Stages of development of the clitic personal pronouns are represented in Table (10) below.

Development of Person, Number, and Gender in Personal Pronouns

The above analyses of the emphatic and clitic personal pronouns yield the following overall picture of the development of person, number, gender in the two series between 1;10 and 2;10: The third person neuter singular forms aftó (or túto) and to are the first forms to emerge, with the emphatic preceding the clitic since it can occur in one-word utterances. The three children observed at 1;10 use both forms productively to refer to objects. With both Janna and Mairi, development of the category of person is well under way: In the emphatic series, the third person neuter singular aftó contrasts with the first person nominative eghó referring to the speaker as agent and, in the clitic series, both first person mu expressing possessor or benefactive and third person to referring to objects occur. With Spiros, first person nominative singular of the emphatic series and first person genitive as well as third person neuter/masculine genitive tu of the clitic series, all used for speaker reference, have just begun to emerge. Thus, before the end of their second year, two of the three children studied not only distinguish between third and first person singular (aftó vs. eghó, to vs. mu) but in addition between nominative (eghó) and an oblique case mu of the first person singular, albeit in radically different contexts. While eghó is used in one-word utterances or is constructed with verbs, mu only occurs with nouns. Within the series of clitic pornouns, the same kind of distribution is characteristic of to, constructed with verbs, and

mu, constructed with nouns, and it is therefore doubtful whether these forms belong to the same paradigm in the children's language. While Janna has developed a number opposition in the third person neuter accusative of the emphatic series (aftó 'SG' vs. aftá 'PL'), Mairi also contrasts number in the corresponding clitics (to vs. ta). There are even a few instances of the latter opposition to be found in Spiros' speech. Mairi is the only child having started to contrast gender in the third person singular, predominantly in the emphatic series.

By 2;4, the three children studied have added the second person nominative singular to the emphatic series (eghó '1SG:NOM', esí '2SG:NOM', aftós '3SG:NOM'). In the clitic series, only Mairi and Janna contrast the three persons in the accusative singular (me, se, to). Maria has not yet added the second person (se). The first person plural nominative of the emphatic series (emís) and the corresponding oblique clitic form (mas) have emerged in the three children's speech. In the third person of both the emphatic and the clitic series, number contrast is mainly limited to the neuter (nominative)/accusative of both series (aftó vs. aftá; to vs. ta). The three genders are distinguished in the third singular of the emphatic series (aftós 'MASC', aftí 'FEM', aftó 'NEUT'). While Mairi and Maria use three gender forms of the accusative singular of the clitics (ton 'MASC', tin 'FEM', to 'NEUT'), the masculine/neuter opposition is not yet functional. Also, the "old" unmarked neuter forms aftó and to remain the most frequent ones in the three children's data. Concerning the opposition of nominative and accusative within one and the same person of the emphatic series, form seems to precede function. While, at 2;4, Mairi also distinguishes functionally between these cases in the three persons (eghó

'1SG:NOM' vs. eména '1SG:OBL', esí '2:SG:NOM' vs. eséna '2SG:OBL', aftós '3SG:MASC:NOM' vs. aftó(n) '3SG:MASC:ACC'), Janna does so only in the first person. In the clitic series, genitive and accusative of first person singular (mu vs. me) are distinguished by the three children. Mairi and Janna have acquired this contrast in the second person as well (su vs. se). The third person singular remains limited to the accusative to.

In spite of persisting case errors in Mairi's and Janna's data at 2;10, the opposition of nominative and accusative is fairly well established formally as well as functionally in the three persons of the emphatic series of personal pronouns in the speech of these two children. The same is true of the genitive-accusative contrast in the first and second person singular of the clitics. The three children distinguish the three genders in the nominative and accusative of the third person singular of the emphatic series and in the accusative of the clitics. Mairi is the only child who has begun to distinguish the masculine/neuter form tu from the feminine tis in the genitive singular of the clitics and has started to distinguish gender in the third person plural. The developmental sequence of the forms of the emphatic and clitic series of Greek personal pronouns is represented in Table (10).

Insert TABLE 10

2.2.3. Verbal Inflection

2.2.3.1. Aspect, Tense, and Mood

By 1;10, the grammatical categories of perfective and imperfective aspect as well as indicative, subjunctive, and imperative mood are all formally distinguished in the verb forms occurring in the observational data. Disregarding the imperative mood, in which the aspectual contrast is often neutralized in the standard language, the four combinations of the two aspects and the two non-imperative moods are all represented by the children's verb forms before the end of the second year (display 20a). Since, at 1;10, the imperfective past has not yet emerged, the category of tense is implied rather than formally distinguished. At this stage of development, perfective indicative verb forms correspond to adult past tense forms and imperfective indicative verb forms to non-past ("present") tense forms. This verb-form inventory as well as the use to which it is put (see 2.3.2.3) is evidence that aspect is a more fundamental category than tense in child Greek as it is in the standard language (Stephany, 1981, 1985; Seiler, 1952). When imperfective past forms emerge at 2;4, the category of tense becomes necessary to account for the distinction of non-past and past imperfective indicative verb forms. As the rank orders indicated in (20) show, imperfective past forms represent the least frequently used category (see Stephany, 1985, p.115).

(20) Rank Order of Tense-Aspect-Mood Categories

(a) Period I (1;10)

PFV:SUBJV > IPFV:IND > IMP > PFV:IND > IPFV:SUBJV

(b) Period II (2;4)

PFV:SUBJV, IPFV:NONPAST > PFV:PAST > IMP > IPFV:SUBJV > IPFV:PAST

(c) Period III (2;10)

IPFV:NONPAST > PFV:SUBJV > PFV:PAST > IMP > IPFV:SUBJV > IPFV:PAST

Even when the two aspects are used in the same mood (subjunctive) or tense (past indicative), they are very rarely contrasted with one and the same verb in Stephany's data. However, the number of verbs occurring in both the perfective and the imperfective past in Marilena's observational data between 2;6 and 3;9 steadily increases from 14% to 37% while their input frequency of approximtely 25% remains nearly constant (Katis, 1984). With the 3- and 4-year-old subjects of Katis' cross-sectional study, who were "slightly guided to produce Past and Perfect constructions" by being asked to talk about past situations in natural contexts of interaction with adults familiar to them, the percentages of 41% and 52%, respectively, are even higher.

Although the children's perfective and imperfective verb stems are often not produced in their standard form, both classes are distinguished in an average of 90% of verb form tokens already by 1;10, which rises to 98% at 2;10 (Stephany, 1985, p.82). In the children's data at 1;10, not all of the phonological processes characteristic of first conjugation "sigmatic perfectives" (see 1.1.3.6) are yet to be observed. Also, perfective stem forms vary considerably (for details see Stephany, 1985, p.67ff.). However,

perfective stems are consistently distinguished from imperfective ones by ending in a voiceless obstruent. In the course of development, this stem-final obstruent is further specified for the features [coronal] and [continuant]. With first conjugation verbs following asigmatic techniques of perfective stem formation, such as metaphony, consonant or syllable deletion, and suppletion, distinction of perfective and imperfective stems is completely achieved already by 1;10 (Stephany, 1985, p.82). Since second conjugation perfective stems differ from their imperfective counterparts by an additional syllable (-i(k)s-, -a(k)s-) which does not present any particular difficulty once the cluster has been either reduced or fronted to the dental point of articulation, both stems are also fully distinguished in period I of observation (Stephany, 1985, p.77). Although second conjugation stems ending in -ks- at first never appear in their standard form and do so only in 38% of tokens by 2;10, it is interesting to note that the range of variation of -Vs- stems differs from that of -Vks- stems already at 1;10: While -ks- is frequently replaced by either the dental affricates [ts], [tsh], [dz] or the voiceless dental stop, stopping, let alone affrication, very rarely occurs with the -s- stems (for details see Stephany, 1985, p.76f.). There is a similar tendency to be noticed for first conjugation perfective stems ending in -Vs- as compared to stems ending in -Vks-: While, already by 1;10, the simple fricative is rarely strengthened, the cluster is either reduced to the stop or fronted to dental position or both. Thus, in spite of considerable variation of stem finals, both morphologically and phonologically conditioned subtypes of perfective stem formation are early distinguished in child Greek, albeit for phonological reasons: While the children use most -Vs- perfective stems in their standard form, -Vks- stems most often end in a non-continuant obstruent, either a stop or an affricate (Stephany, 1985, p.70f.).

Due to the children's extensive use of the subjunctive mood to express deontic meanings, perfective stems of dynamic verbs (especially telic ones) are more frequent and accordingly better known than imperfective ones. This explains why imperfective stems are formed on the basis of perfective stems in a few cases. After 2;4, children may incorrectly interpret class 2 perfective verb forms as belonging to class 1: e.g., xaládhis for intended (nonstandard) xaláz-is 'break:IPFV-NONPAST:2SG', instead of xal-ás 'break:IPFV-NONPAST:2SG', based on the subjunctive form xal-ás-is 'break-PFV-NONPAST:2SG' in analogy to class 1 forms such as non-past ("present") indicative dhiaváz-is 'read:IPFV-NONPAST:2SG' vs. subjunctive dhiavás-is 'read:PFV-NONPAST:2SG' (Stephany, 1985, p.77). Examples from Katis' data are jerázo instead of jernáo/jernó 'become old' derived from the perfective stem jerás- and vromízi instead of vromái 'it smells' from vromís- in analogy to mirízi, mirís- having a similar meaning.[9] Katis (1984) found overgeneralizations in both directions with a boy of 2;7 in her cross-sectional data. Depending on aktionsart, Dimitris overgeneralizes the semantically unmarked stem, overusing the perfective stem of telic verbs (21a) and the imperfective stem of atelic ones (21b). All in all, overgeneralizations are extremely rare, however, in both Katis' (1984) and Stephany's (1985) extensive verb form corpora.

(21) Dimitris 2;7 (Katis, 1984)

(a) pés-i
fall:PFV-NONPAST:3SG
instead of péft-i

fall:IPFV-NONPAST:3SG
when imitating the rhyme polá tufékia péft-un
many guns fall:IPFV-NONPAST:3PL
'Many guns are being shot.'

(b) véx-i
wet:IPFV-NONPAST:3SG
for na to vréks-is
MOD.PTL it wet:PFV-NONPAST:2SG
'I want you to wet it.'

The main tense forms occurring in Stephany's data up to 2;10 are non-past ("present") and (simple) past. They are distinguished by the ending and are dealt with in 2.2.3.2. Although both the periphrastically formed present and past perfect do occur in Katis' (1984) extensive longitudinal data of Marilena as well as in her cross-sectional data, they remain exceptionally rare until about 3;2. When, in Marilena's data of the second half of the third year, the present perfect, standardly formed by the auxiliary éxo 'have' and the "perfect formant" (Mackridge, 1985, p.170), first emerges, the auxiliary is variably omitted (Katis, 1984) (other errors are discussed in 2.2.3.2).

The future is at first so tightly interwoven both formally and functionally with the subjunctive mood that it would be quite arbitrary to classify some of the mostly perfective verb stems combined with a non-past ending as "future tense" rather than subjunctive mood. While, in the standard language, both categories are distinguished by particles (subjunctive na, future tha), children

often omit them at 1;10 (Janna, 88% (N = 145); Spiros, 60% (N = 73); Mairi, 43% (N = 145)) or reduce them to their common vowel a (Stephany, 1985, p.94ff.). Individual differences in particle use among the three children observed at 1;10 as well as their more uniform linguistic behavior at 2;4 and 2;10 suggest the gradual differentiation of the category of future from the general category of subjunctive with a concomitant specialization of the latter represented in Table (11). When first observed at 1;11, Janna is on the verge of stage II. Spiros has reached stage II at 1;9. The fact that he does not differentiate tha from na cannot be attributed to purely phonological reasons, since, in full lexemes, he does not omit an initial voiceless interdental but substitutes it by the corresponding alveolar fricative. Although na does not cause any phonetic problems, he nevertheless reduces it to a more often than not. At the age of 1;9, Mairi is in stage III. While using 47% of her subjunctive verb forms with a particle, na and tha are not formally distinguished in half of these tokens. When observed at 2;4, Mairi (2;3), Maria (2;3), and Janna (2;5) use particles with a mean of 86% of subjunctive verb form tokens (N = 627). While Mairi and Maria only distinguish particle types in about 50% of tokens including a particle, Janna already does so in 93% of these. The three girls thus have attained stage IV. At 2;10, they accompany subjunctive verb forms by particles in a mean of 93% of tokens (N = 543) and differentiate between both particle types in 72% (Maria) to 97% (Janna) of these.

Insert TABLE 11

Since the modal particle na is appropriate in so many more contexts of the children's speech than the future particle tha, it is not surprising that Spiros' few tokens of the full form of the modal particle should all be adequately used, while the reduced form a shows some functional overlap of tha and na. In the 25% of subjunctive verb form tokens in which modal and future particle are distinguished in Mairi's data from 1;10, na occurs almost twice as often as tha (pronounced [tha], [sa], or [ta]). While there are no overextensions of the "new" form tha, na does occur in some contexts where tha would have be appropriate (see 2.3.2.3, example 116). Mairi's addition of na to a wrongly segmented verb form in na nanítsome for na-níks-ome 'MOD.PTL-open:PFV-NONPAST:1PL' (= 'let's open') shows that, at 1;10, she is aware of the fact that subjunctive verb forms combine with a particle. There is a similar error from Maria at 2;4, where she adds the future particle tha to the unanalyzed subjunctive form n-érth-i 'MOD.PTL-come:PFV-NONPAST:3SG' resulting in tha néthi instead of thá-rth-i 'FUT.PTL-come:PFV-NONPAST:3SG' (= 'he will come') (Stephany, 1985, p.77). Thus, use and form of the modal and future particles in the children's data from 1;10 to 2;10 suggest a gradual differentiation of an at first global category of subjunctive mood into the more specialized categories of subjunctive mood and future tense (Stephany, 1992, p.297).

To summarize, the first categories of mood, aspect, and tense to be formally differentiated by Greek children are synthetically formed. These are the three modal categories of subjunctive, imperative, and indicative and the two aspectual ones of perfective and imperfective. Tense is at first only implicit in the global categories of aspect and mood. While the opposition of past and

non-past develops within indicative forms, the future gradually emerges from the subjunctive (Stephany, 1985, 1992).

2.2.3.2. Person and Number

As is usual in inflecting languages, person and number are expressed together with mood or tense by the endings of MG finite verb forms. Since expression of the subject is not syntactically obligatory, verbal endings may carry an important functional load. Whether stressed (second conjugation) or unstressed (first conjugation), they consist of one or several syllables with unreduced, perceptually salient vowels. Except for the second singular and third plural, verbal endings consist of open syllables. But even third plural endings may by converted to open syllables by optionally adding a final -e (e.g., dhínun, dhínune 'they give'). Since a stem-final consonant serves as onset of the first (or only) syllable of the inflectional ending, verbal endings constitute an integral part of finite verb forms. Considering these characteristics of MG finite verb forms, it is not surprising that inflectional endings are lacking in merely 3.8% of tokens on average at 1;10 (range: 2.5% - 5.0%, N = 1,777), a percentage which remains nearly constant through 2;10. The children show a strong tendency to apply the optional rule of deletion of the ending of the imperative singular in contexts where it precedes either a clitic with initial t or other words with an initial vowel; resulting consonant clusters are frequently reduced (e.g., klís-e to 'close:PFV-IMP:2SG it' becoming klísto and eventually nonstandard klíto). Errors with verbal endings comprise vowel substitution, vowel reduction, and deletion of either syllable of bisyllabic endings. Although the tendency to produce open syllables is even more pronounced in child Greek than in the standard language, deletion of the final s of the second

person singular resulting in confusion with the third singular cannot be attributed to phonological reasons alone but is a consequence of the functionally more marked character of the second as compared to the third and first persons (also see Katis, 1984).

Singular verb forms are much more frequent in the children's data than plural ones. Except for second person plural forms, which emerge after 1;10 and remain extremely rare through 2;10, and second singular verb forms, which, at 1;10, are only used by Mairi and are first found in Maria's data a year later, all other person-number combinations occur before the end of the second year. However, use of the category of person depends on mood or tense. Thus, at 1;10, when third person singular verb forms are very frequent overall, they occur even more frequently in the past tense, in most cases correctly referring to non-participants in the speech event (Stephany, 1985, p.91f.). Once the children have nearly stopped referring to the speaker by the third singular by 2;4, the third singular is used slightly more frequently in the indicative than the first person, whereas in the subjunctive the first singular occurs much more frequently than the third. The first person plural is most frequent in the subjunctive, whereas the third plural is quite commonly used in the indicative to make general statements. In example (22), Spiros corrects the lexeme pul-áki 'bird-DIM' used by the interviewer to point out a bird. By 2;4, when more use is made of the second singular, it occurs in the subjunctive more frequently than in the indicative (Stephany, 1985, p.110). These differences in the use of the three persons follow from the functional differences between the indicative and subjunctive mood. While the former serves to make statements or ask questions, the latter is used for directive or commissive speech acts. With the

exception of one example from Janna's data at 2;10, the imperative plural does not yet occur.

(22) Spiros, 1;10 (from Stephany, 1985, p.134)
azoáki eki # lène for aidhon-áki eki to lè-ne
nightingale-DIM there it call:IPFV-NONPAST:3PL
'This is called nightingale.'

Although reference to the speaker by the third singular occurs with the four children observed at 1;10, Mairi and Natalie already mainly use the first person for this function and Janna refers to herself by first person nearly as often as by third person verb forms. Spiros is the only child to use third person verb forms for self-reference much more often than first person forms. However, out of a nearly equal number of non-past ("present") indicative and subjunctive verb forms, he refers to himself by first person forms three times as often in the subjunctive than in the indicative. Spiros does not yet functionally distinguish between second and third person.

In addition to referring to speaker or addressee, third person singular forms also correctly refer to non-participants in the speech event in the data of all children at 1;10. Since the referential function of these forms is still rather undifferentiated, they occur very frequently. The unmarked character of the third person singular in the MG system of person and number makes it a good candidate for a prototypical non-imperative finite form (Philippaki-Warburton, 1973). The evidence found in the use of this form at 1;10 suggests that this functionally least marked form is the basic form in the development of both

the indicative and the subjunctive mood. Further evidence comes from a child aged 2;7 in Katis' cross-sectional study, who attempts to assimilate verb forms to the "gestalt" of third person singular non-past active indicative forms by using akú-i 'hear:IPFV-ACT:NONPAST:3SG' for akúj-ete 'hear:IPFV-PASS:NONPAST:3SG' (= 'it is heard') and forming nonstandard fén-i for fén-ete 'appear:IPFV-PASS:NONPAST:3SG' (= 'it is showing') or skíst-i for skís-tik-e 'tear-PFV:PASS-PAST:3SG' (= 'it got torn'). The initial third singular form fo child Greek, underspecified for person, first splits into first and third person. The second person develops last (also see Katis, 1984).

By 2;4, self-reference is (nearly) exclusively expressed by first person forms of both indicative and subjunctive mood. Beginning at 1;10 and becoming more pronounced at 2;4 and 2;10, the second person is gradually differentiated from the third. However, in directive speech acts expressed by the subjunctive, third person forms are often used to avoid second person forms (example 23). A few instances of confusion of form and function of person and number occur through 2;10, with the first singular referring to the addressee or the third singular being used instead of the third plural or vice versa. Although some of these instances may be performance mistakes rather than systematic errors, they nevertheless indicate that the correlation of form and function of person and number of verb form endings has not yet been firmly established.

(23) Mairi 1;10
na kas-ís-i (for kath-ís-i) i mamá
MOD.PTL sit-PFV-NONPAST:3SG the mummy
'Mummy shall sit down.'

Some incorrect subjunctive and imperative forms occurring through 2;10 indicate that the functional similarity of these moods may lead to confusion of form. In some of these forms, imperative forms are provided with a subjunctive ending (e.g., káti, kátsi for káts-e 'sit-IMP:SG' or na káts-is 'MOD.PTL sit-NONPAST:2SG' (= 'sit!', 'wait!')) and in others, segmentally imperative forms do not undergo stress shift and are stressed like subjunctive forms (Mairi, 1;10, folís-e instead of fór-es-e 'wear-PFV-IMP') (Stephany, 1985, p.106f.).

Even though overgeneralizations of verbal endings are very rarely found in Stephany's (1985) and Katis' (1984) data, some of the few examples which do occur are theoretically interesting since they shed light on the development of tense-mood and person-number inflection as well as on the children's awareness of grammatical agreement. Janna's form lén-un produced at 2;10 instead of the irregular lé-ne 'say:IPFV-NONPAST:3PL' indicates that she has recognized that the non-past third person plural ending of first conjugation verbs is -un (as in févgh-un 'leave:IPFV-NONPAST:3PL'). Her regularization of the defective verb prépi 'must' in example (24a) in order to make it agree with the main verb of the complement in person and number, shows that she has grasped the agreement pattern in constructions like thél-o na to vál-o 'want:IPFV-NONPAST:1SG MOD.PTL put:PFV-NONPAST:1SG' or bor-ó na to válo 'I can put it (there)'. Katis (1984) cites similar examples from Marilena's speech between 2;7 and 3;6 (24b, c).

(24) (a) Janna 2;4
prép-o (for prép-i) na to vál-o
must-NONPAST:1SG (for 3SG) MOD.PTL it
put:PFV-NONPAST:1SG
'I must put it (somewhere).'

(b) Marilena 3;2 (Katis, 1984)
dhen pép-un (for prép-i) na lé-ne
not must-NONPAST:3PL (for 3SG) MOD.PTL
say:IPFV-NONPAST:3PL
'They mustn't say (that).'

(c) Marilena 3;3 (Katis, 1984)
tus arés-une (for arés-i) na léne
to.them please-NONPAST:3PL (for 3SG) MOD.PTL
say:IPFV-NONPAST:3PL
'They like to say (that).'

The children in Stephany's data are struggling with subject-verb agreement in person and number through 2;10 (examples 25a, b). Katis (1984) notes use of third singular verb forms with a plural subject by two children between 2;7 and 2;11, thereby avoiding the more marked third plural (25c).

(25) (a) Mairi 1;10
kratá-i (for kratá-o) eghó
hold:IPFV-NONPAST:3SG (for 1SG) I

'I hold (it).'

(b) Maria 2;4

at-ó b-ún6

this-NEUT:NOM:SG enter:PFV-NONPAST:3PL

for aft-á na b-úne

this-NEUT:NOM:PL MOD.PTL enter:PFV-NONPAST:3PL

'These shall get in.'

(c) E 2;11 (Katis, 1984)

ke i dhjo to skótos-e (for skóto-s-an) to pul-áki

and the two it kill:PFV-PAST:3SG (for 3PL) the bird-DIM

'And the two of them killed the little bird.'

Variable (nonstandard) marking of the "perfect formant" (aparemphato; Mackridge, 1985, p.118) for person and number of the subject of perfect forms is to be found in Janna's speech at 2;10, with Marilena between 2;6 and 3;9, as well as with Jannis in his preschool years (Theophanopoulou-Kontou, p.c.) (examples 26). This not only shows that the children have recognized inflection of verb forms for person and number, but also points to their difficulty of shifting from a verbal grammar which heavily relies on synthetic verb forms to one allowing for periphrastic forms in which grammatical marking is carried from the main verb to the auxiliary (Katis, 1984).

(26) (a) Marilena 2;6 (Katis, 1984)

éx-i pethán-une?

have-NONPAST:3SG die:PFV-NONPAST:3PL

for éx-un pethání?

have-NONPAST:3PL die:PERF.FORMANT

'Have they died?'

(b) Janna 2;10 (Stephany, 1985, p.148)

kíta! cdhó éx-o vr-o (for vri 'find:PERF.FORMANT')

look:IMP here have-NONPAST:1SG find:PFV-NONPAST:1SG

k-álo laghudh-áki.

and-other hare-DIM

'Look! Here I've also found another little hare.'

(c) Marilena 3;9 (Katis, 1984)

tin íx-e kléps-une

her have-PAST:3SG steal:PFV-NONPAST:3PL

for tin íx-an klépsi

her have-PAST:3PL steal:PERF.FORMANT

'They had stolen her.'

2.2.3.3. Voice

As noted in 1.1.3.6, there is no perfect correspondence between morphological and semantic aspects of voice. Since some of these form-function inconsistencies concern verbs commonly used in everyday speech, these should cause confusion once the children have begun to realize voice distinctions. Although passive instead of active forms only occur in Marilena's spontaneous speech after 3;2, Mairi's nonstandard péftike - an eventual

analogy to the passive form kríftike 'it.hid/got hidden' - as well as Janna's kriónome in analogy to zesténome 'I.am.hot' attest that, before the end of the second year, children may be aware of the fact that passive verb forms serve to express situations uncontrolled by an agent (examples 27).

(27) (a) Mairi 1;10
péft-ik-e (from péfto 'fall')
fall-PASS:PFV-PAST:3SG
for é-pes-e
AUGM-fall:PFV:ACT-PAST:3SG
'It fell.'

(b) Janna 1;10
krión-ome
be.cold:IPFV-PASS:NONPAST:1SG
for krión-o
be.cold:IPFV-ACT:NONPAST:1SG
'I am cold.'

(c) Marilena 3;2 (Katis, 1984)
sekolí-thik-e
unstick-PASS:PFV-PAST:3SG
for ksekól-is-e
unstick-ACT:PFV-PAST:3SG
'It got unstuck.'

(d) Marilena 3;5 (Katis, 1984)
aróst-ik-e
fall.sick-PASS:PFV-PAST:3SG
for aróst-is-e
fall.sick-ACT:PFV-PAST:3SG
'She fell sick.'

Overextension of passive forms with reflexive meaning in transitive sentence frames (example 28) are interpreted by Katis (1984) as indicating that verb forms are at first learned in and for denoting certain situations, irrespective of the voice distinctions they may imply in the standard language (ftjáxnome 'fix oneself/get fixed'). An alternative explanation is that the function of passive forms to express reflexive meanings has been recognized.

(28) Marilena 2;7 (Katis, 1984)
ftjáxn-ome (for ftjáxn-o) ta malj-á mu
fix:IPFV-PASS:NONPAST:1SG (ACT:NONPAST:1SG) the hair-PL of.me
'I am fixing my hair.'

At 3;3 and 3;6, Marilena creates active forms for the medio-passive verbs thimáme 'remember', xriázome 'need', and lipáme 'feel.sorry (for s.th.)' in transitive sentences. Although this might be taken as evidence that the child has become aware of the transitive sentence frame more generally, the fact that such overgeneralizations are limited to verbs denoting situations uncontrolled by an agent can only be explained if they are interpreted as extensions of the

morphosyntactic pattern of active verbs belonging to the same semantic field, such as ksexnó 'forget', ponáo 'feel.pain' (Katis, 1984).

The pattern of MG plurifunctional active verb forms (situations controlled or uncontrolled by agents) is overgeneralized by Katis' subjects well into their fifth year, but only for verbs expressing destruction (example 29). The reason is that children are well acquainted with very frequent verbs such as spázi '(s.th.) breaks', '(s.o.) breaks (s.th.)' or xalái '(s.th.) gets wrecked', '(s.o.) wrecks (s.th.)' and therefore extend their pattern to semantically related verbs (Katis, 1984).

(29) T 4;3 (Katis, 1984)
mú-skis-e (for mu skís-tik-e) i kálsa
of.me-tear:PFV:ACT-PAST:3SG (of.me tear-PFV:PASS-PAST:3SG)
the:FEM:NOM:SG sock:FEM:NOM:SG
'My sock got torn.'

There is only scarce evidence on the acquisition of the Greek passive voice available so far. Therefore, a few general remarks must suffice in conclusion. In the beginning, passive forms occur rather infrequently. They are often shortened or harmonized partial or global renderings of as yet unanalyzed standard forms (examples 30). In the course of the third year, passive forms of both active and medio-passive verbs slowly become a little more frequent and diversified (examples 31, 32). Although Katis (1984) found verb forms to be properly marked for voice in almost all cases after 2;0 in the cross-sectional data and after 2;6 in the longitudinal data of the girl Marilena, a few

theoretically interesting overgeneralizations show that the passive voice is at first taken to denote situations uncontrolled by an agent or reflexive actions. Genuine patient-oriented passive constructions seem to be even rarer in child language than in adult spoken Greek.

(30) Mairi 1;10 (Stephany, 1985, p.79)
(a) kikí for na kim-ith-í.
MOD.PTL sleep-PASS:PFV-NONPAST:3SG
'He shall go to sleep.'

(b) kimíkiki for kim-íthik-e.
sleep-PASS:PFV-PAST:3SG
'He slept.'

(31) Janna 2;4
sa kiftó for tha krift-ó.
FUT.PTL hide:PFV:PASS-NONPAST:1SG
'I am going to hide.'

(32) Janna 2;10
(a) k(r)íf-tik-e.
hide-PFV:PASS-PAST:3SG
'He hid (h.s.).'

(b) na mi leroth-ó/úme
MOD.PTL not:MOD

make.dirty:PFV:PASS-NONPAST:1SG/1PL

'so that I/we will not make myself/ourselves dirty'

2.2.4. Word Formation

Much less is known about the development of word formation than on the acquisition of MG inflectional morphology. Quite extensive (unpublished) diary data which Theophanopoulou-Kontou collected from her son Jannis between the ages of 6;4 and 6;11 document a stage of development when the child produced quite a number of neologisms either by using standard word-formation patterns to fill accidental lexical gaps or by otherwise overextending standard patterns. The following is based on Thomadaki's (1986) analysis of part of these data.

By engaging her son in metalinguistic conversations on derivational formations, Theophanopoulou-Kontou tested Jannis' understanding of derivatives, such as diminutives, and at the same time his ability to produce new ones himself. A particularly charming example of this type of metalinguistic discourse between mother and child cited by Thomadaki (1986) is given in (33). Except for the relevant lexemes, it has been translated into English.

(33) Jannis 6;4 - 6;11 (Thomdadaki, 1986)

MOT: What does ghat-áki (cat-DIM:NEUT) mean?

JAN: The little one; ghát-a (cat-FEM) is the mother, ghát-os (cat-MASC) is the father, and ghat-áki is the little one. I would rather call the mother ghat-ína (cat-FEM).

MOT: And what is ghat-úla (cat-DIM:FEM)?

JAN: One calls it ghatúla because one loves it.

According to Mackridge (1985, p.158), "diminutives are frequently used in MG, especially in speech, to express not only smallness but familiarity and endearment." Jannis makes the same difference between diminutive formations of other lexemes, such as eklis-áki 'church-DIM:NEUT' and eklis-úla 'church-DIM:FEM', thus more generally attaching the connotation of endearment to the diminutive suffix -úla. The fact that he semantically differentiates between the two diminutive suffixes -áki and -úla, either of which may be attached to feminine nouns, is evidence of a more general tendency of language users to exploit formal differences for expressing meaning and to avoid synonymy of paradigmatically related forms.

The moved form ghatína he proposes shows that he feels a need for marking the natural gender of the mother cat in a transparent way and does not consider the grammatical gender of the noun gháta 'cat' sufficient for this purpose. This indirectly demonstrates that he considers gender as a formal grammatical category rather than a semantic category. Accordingly, there are no distributional errors of the suffixes -úla and -áki to be found in Jannis' data, the first of which is limited to feminine nouns while the latter, the most frequently used MG diminutive suffix, is mostly added to neuters, but may also be combined with nouns of other genders (Mackridge, 1985, p.158). The child's striving for transparent marking of natural gender is also evidenced by his overextension of motion suffixes to suppletive pairs of words like vódhi 'piece.of.cattle:NEUT' (semantically unmarked) and ajeládha 'cow:FEM'

(semantically marked) when he opposes (nonstandard) vodhína 'mother.cow' to (nonstandard) vódhas 'father.cow'. The formation of ghat-ul-íni 'cat-DIM-DIM:MOT:NEUT' (= 'little (female or male) cat') and ghat-ul-ína 'cat-DIM-DIM:MOT:FEM' (= 'little (female) cat') by adding the neuter diminutive suffix -íni or the feminine diminutive/motion suffix -ína to a base already containing a diminutive suffix is evidence that the child is able to use such suffixes in a creative way, arriving at "multi-layered" highly expressive diminutive formations.[10]

In spite of all this creativity in handling diminutive and motion suffixes, Jannis does not seem to have acquired general morpheme-based derivational rules. Although he can relate a transparent diminutive derivative like xelon-ítsa 'tortoise-DIM:FEM' to its base xelóna 'tortoise', he does not understand the relation between th-ítsa 'aunt-DIM:FEM' and thía 'aunt'. In spite of the fact that Jannis is familiar with using bases as well as the corresponding derived diminutives ending in -áki, the most frequent diminutive suffix overall, he proves unable to form such diminutives from a base given to him by his mother. Thomadaki (1986) concludes that the fact the child understands the semantic relation between base and diminutive does not imply that he has grasped the relation between morphemes.[11] Jannis' overextension of motion suffixes as well as his tendency to strictly separate agentive nouns and nouns signifying professions are both evidence of his tendency to clearly mark the semantic categories he wants to express, thereby arriving at a transparent relation between base and derivative (Thomadaki, 1986; Stern & Stern, 1928, p.394ff.). Of the MG augmentatives, Jannis productively uses only the morphologically and semantically transparent ones (e.g., skíl-os 'dog-

MASC:NOM:SG', skíl-ar-os 'dog-AUG-MASC:NOM:SG') whereas less transparent bahuvrihis such as kefál-as 'stubborn.fellow-AUG:MASC' (from kefáli 'head:NEUT') raise difficulties.

Errors occur with lexically conditioned allomorphs, such as the motion suffixes -ísa and -tría. Thus, Jannis uses pelátria instead of standard pelátisa '(female) customer' (base pelátis 'customer'), but ráftisa for standard ráftra '(female) tailor' (base ráftis 'tailor') both of which observe MG word formation rules (Thomadaki, 1986). The same kind of difficulties is caused by the lexically conditioned distribution of the very productive MG nominalizing suffixes -si, -mos, and -ma forming deverbal nouns (Thomadaki, 1988). Thus, Jannis creates katevaz-mós 'put.down-NOMLR:MASC' instead of katévaz-ma 'put.down-NOMLR:NEUT' (= 'descending'), extending this pattern to cases in which suppletive forms are used in the standard language (e.g., játref-si 'heal-NOMLR:FEM' instead of therapía 'therapy'). Katis (1984) cites an example in which Marilena laughingly plays around with derivational suffixes for the purposes of rhyme (34). Since the verbalizer -ízo is extremely productive (Thomadaki, 1988), it may be assumed that Marilena is familiar with the form dhrosízo.

(34) Marilena 3;9 (Katis, 1984)
se zest-én-o ke se dhros-én-o (for dhros-íz-o)
you:ACC warm-VBLR-NONPAST:1SG and you:ACC
cool-VBLR-NONPAST:1SG
(for cool-VBLR-NONPAST:1SG)
'I am warming you and cooling you.'

Thomadaki (1986) points out that Jannis does not only create derivatives for lexical purposes, but also for fulfilling certain syntactic functions. Thus, after having introduced the noun aftokínito 'car' as a rheme in a preceding utterance, its plural form appears as a theme in example (35a). In order to be able to use the periphrastic construction dhéxome + N:PL 'get N:PL', thereby avoiding a difficult passive form of the second conjugation verb tsugráo 'push', he creates the non-existing, but correctly formed deverbal action noun tsugrés in analogy to maxerjés occurring in the standard expression dhéx-ome maxerjés 'receive-IPFV:PASS:NONPAST:1SG thrusts' (= 'I get thrusts with a knife').[12] Similarly, by deriving an active, transitive nonstandard verb révo from the mediopassive révome 'belch' the child avoids the syntactically more complex standard expression of causativity in which the main verb is subordinate to the causative verb káno 'do, make' (example 35b).

(35) Jannis 6;4 - 6;11 (Thomadaki, 1986)

(a) ta aftokínit-a dhéx-onde tsugr-és
the:NEUT:NOM:PL car-NEUT:NOM:PL
get-PASS:IPFV:NONPAST:3PL push-FEM:ACC:PL
'The cars get pushed.'

(b) me rév-i to aláti
me belch-ACT:NONPAST:3SG the salt
for me kán-i na rév-ome to aláti
me make:IPFV-NONPAST:3SG MOD.PTL
belch-PASS:IPFV:NONPAST:1SG the salt

'The salt makes me belch.'

As far as derivation of adjectives is concerned, Jannis gives evidence of productive usage of a pattern by which expressive absolute superlatives are formed through composition with the numeral pénde 'five', the noun theós 'God', or the quantifier ólos 'all' (examples 36).

(36) Jannis 6;4 - 6;11 (Thomadaki, 1986)

(a) pend-a-vrómik-os
five-CONN-dirty-MASC:NOM:SG
'extremely dirty'

(b) the-o-vrómik-os
God-CONN-dirty-MASC:NOM:SG
'absolutely dirty'

(c) ol-ó-palj-o
all-CONN-old-NEUT:NOM:SG
'extremely worn'

Although Jannis furnishes neologisms of the three lexical classes of nouns, adjectives, and verbs, most of his formations are nouns, both derivatives and compounds. His nominal compounds all belong to the class of determinative compounds. All of them are all correctly built transparent formations closely connected to the corresponding phrases (examples 37). Much as in the

standard language, nominal compounds are more frequent in Jannis' speech than verbal compounds.

(37) Jannis 6;4 - 6;11 (Thomadaki, 1986)

(a) zarkadh-ó-vuno
deer-CONN-mountain
for vunó ton zarkadhjón
mountain of.the deer

(b) arost-o-karakáksa
sick-CONN-crow
for árost-i karakáksa
sick-FEM:NOM:SG crow:FEM:NOM:SG
'sick crow'

Jannis not only produces new compounds but also tries to analyze some of those he encounters. The explanation of the word ghrafomixaní 'typewriter' (example 38a) which he offers to himself after having asked his mother to use her typewriter shows a metalinguistic endeavor to understand the relation between sign and signified (Thomadaki, 1986). Although this paraphrase does not quite correspond to the structure of such compounds, the child is correct in identifying an underlying predicative expression. In another example cited by Thomadaki (1986), Jannis explains the accusative plural pro-skóp-us 'DER.PRE-guard-MASC:ACC:PL' of the compound próskopos 'scout' by segmenting it into elements with which he is familiar, much as in popular etymology. Interestingly, the child explicitly indicates the pattern he is

following and segments properly (example 38b). (Except for the relevant items, the example has been translated into English.)

(38) Jannis 6;4 - 6;11 (Thomadaki, 1986)

(a) ghraf-o-mixaní
write-CONN-machine
ghráfi ghrámata ke íne ke mixaní
writes letters and is also machine

(b) Well, Mummy, you know something?
The word proskópus means
páme pros kópus (= 'let's.go towards pains'), just as
xristújena (= 'Christmas') means jéna xristú (= 'birth
of.Christ').

Concern for transparency and conversion of unfamiliar forms to familiar patterns can be found at a much earlier age, when, at 2;10, Mairi and Janna reanalyze the newly encountered baluvrihi kokin-o-skuf-ítsa 'red-CONN-cap-DIM:FEM:NOM:SG' (= 'Red Riding Hood') as the noun attributive phrase kókin-i skuf-ítsa 'red-FEM:NOM:SG cap-DIM:FEM:NOM:SG (see 2.2.2.2). While, on the first and second day of first encountering this long word at 2;10, Maria produces two global 'gestalt' versions as well as an incomplete one ([kokufífi], [goNkufítsa], and [kokinosu-]), she finally succeeds in rendering it nearly correctly as [kotsinokufítsa]. Still, after having named the pieces of clothing Red Riding Hood is wearing in a picture book during the second session, she is able to answer the investigator's question why Red Riding Hood

is called kokinoskufítsa by saying 'because she wears the (s)kuf-áki 'hood-DIM:NEUT:SG'. Unlike Maria, Janna produces the word correctly twice in her own utterances a few turns after it has been used by the investigator. The next day, she only produces six reanalyzed noun phrase versions, however. In spite of this, she will not accept the investigator's explanation of Red Riding Hood's name by íxe kókin-i skuf-ítsa 'she.had red-FEM:ACC:SG hood-DIM:FEM:ACC:SG' and corrects her by the paraphrase íxe kókin-o skuf-áki 'she.had red-NEUT:ACC:SG hood-DIM:NEUT:ACC:SG' in which she uses the diminutive suffix -áki with which she is more familiar. Being asked to retell the tale into which she has been introduced in a previous session, Mairi spontaneously refers to Red Riding Hood by the noun phrase kókini skufítsa on two consecutive days . Only after having heard the correct name a few times from her mother she variably uses the compound and the noun phrase. These examples are evidence that children may quite early spontaneously analyze complex names and not use them as mere labels.

In a partial replica of Berko's (1958) study of the internal structure of compounds in children's English, Stephany (1980) studied the capacity of analyzing compounds of three degrees of transparency or 'descriptivity' (Seiler, 1975) in three groups of Greek monolingual children aged 2;8 - 3;8, 3;9 - 4;10, and 5;11 - 6;0, who were asked to explain the meaning of invented highly descriptive endocentric determinative compounds and account for the names of less descriptive MG determinative compounds. On the basis of degree of semantic specialization and occurrence of constituents in paraphrases, nouns with little semantic specialization and with both constituents occurring in the paraphrase were classified as fully descriptive (e.g., lik-ó-spito 'wolf-CONN-

house'; every wolf's house is a wolf house), descriptive (e.g., aftokinit-ó-dhromos 'car-CONN-road' (= 'motorway'); not every road for cars is a motorway), and idiomatically descriptive kokin-o-skufítsa 'red-CONN-hood' (= 'Red Riding Hood'). It was found that although the capacity for analyzing words and explaining their meaning or their names grows with age, higher degrees of transparency facilitate the analyzability of compounds to roughly the same degree in the three age groups studied.

To summarize, studies on word formation in Greek language acquisition indicate that morphological and semantic transparency facilitate lexical analysis. In their endeavor to have names at their disposal which clearly express the meanings they want to render, the children furthermore extend adult patterns and apply them to new lexical items thus creating names with a more specific or more expressive meaning and fitting syntactic constructions they choose to use.

2.3. Syntax

2.3.1. Introduction

In order to understand the development of clause and sentence structure in child Greek, it is not sufficient to study inflection and word order. Besides morphosyntactic form, attention needs to be given to semantics -- namely, semantic features of lexical items and semantic roles of arguments --, to pragmatic functions such as theme and rheme, and to discourse structure as well as child-adult verbal interaction. MG being a null subject language in

which word order of declarative sentences is governed by pragmatic rather than syntactic principles, consideration of pragmatics is especially important.

2.3.2. The Clause

2.3.2.1. The Noun Phrase

Noun forms unmarked for case and unaccompanied by a determiner represent the earliest stage in the acquisition of the Greek noun phrase (see 2.2.2.1). Both Spiros and Janna, when first observed at 1;10, most often omit the strongly grammaticalized definite article in obligatory contexts using bare nouns in most instances (see 2.2.2.3). In a few examples, they construct the demonstratives aftós or tútos 'this', which they usually use pronominally, with nouns to express specific definite reference. In addition, Janna and Mairi use álos 'another (one)' with nouns for specific indefinite reference and Mairi also employs the quantifiers polí 'many' and lígho '(a) little' in such contexts.[13] Such constructions are prosodically integrated to varying degrees. In examples (39), the demonstratives seem to be mid-way between pronouns and determiners; rather than being determined by the deictic, the noun functions as an apposition. Loose syntactic constructions such as these still occur in Maria's speech at 2;4. They may eventually be fused into more solid ones with the pronoun becoming a genuine determiner (example 40). Although, at 1;10, Mairi already uses the definite article in 75% of obligatory tokens, she employs demonstratives only pronominally. When demonstratives first appear as determiners in her speech at 2;10, they are correctly used and accompanied by the definite article.

(39) (a) Janna 1;10

túto # kílo mimí for tút-os o skíl-os éxi mimí

this-MASC:NOM:SG DEF.ART dog-MASC:NOM:SG has boo-boo

'This dog has a boo-boo.'

(b) Spiros 1;10

e zo ató # vivío for ja dhós-e aft-ó to vivlío

MOD.PTL give-IMP this-NEUT:ACC:SG DEF.ART

book:NEUT:ACC:SG

'Give this book!'

(40) Spiros 1;10

MOT: ke ístera to váz-une se tút-i ti trípa

and afterwards it put:IPFV-NONPAST:3PL in this hole

'And afterwards one puts it into this hole.'

SPI: si típa, túti típa, béni típa, túti típa, béni típa, túti típa.

for s-tin trípa.

PREP-DEF.ART:FEM:ACC:SG hole:FEM:ACC:SG

se tút-i tin trípa.

in this-FEM:ACC:SG DEF.ART:FEM:ACC:SG

hole:FEM:ACC:SG

bén-i s-tin trípa.

go:IPFV-NONPAST:3SG in-the hole

'Into the hole. Into this hole. It goes into the hole.'

Of the two standard possibilities to indicate specific definite reference, -- the definite article or a demonstrative (obligatorily accompanied by the definite article) --, young Greek children prefer the demonstrative, initially unaccompanied by the article. Although, historically, the definite article develops from demonstrative determiners which, in turn, derive from demonstrative pronouns (Lehmann, 1982:57), not the entire path of grammaticalization is followed in language development.[14] While there is evidence from Greek child language that determiners may develop from pronouns through syntactic integration of their referent nouns (see examples 39), definite articles are directly taken over from adult noun phrases.[15]

A parallel development from pronominal usage to use with nouns is to be observed with the deictic particle na 'there'. By 1;10, children not only employ various gender-number forms of the pronominal expression ná-tos! 'DEICT.PTL-PERS.PRO:MASC:NOM:3SG' (= 'there he is!') as complete utterances, but also combine this form with referent nouns, as is common in the spoken language. In child-directed speech, the mothers either construct the pronominal deictic expression with a nominal apposition as in nátos o píthikos! 'there.he.is the monkey!' or use the particle with a definite noun phrase, e.g., na to skiláki! 'there.is the doggie!' While, at 1;10, Spiros exclusively combines nátos with bare nouns as in example (41), Mairi uses it with definite noun phrases. Thus, by 1;10, nátos is used either as a deictic pronominal or as a kind of demonstrative determiner.

(41) Spiros 1;10

nátos # babás or náto babá for ná-tos o bab-ás

DEICT.PTL-PERS.PRO:MASC:NOM:3SG

DEF.ART:MASC:NOM:SG daddy-MASC:NOM:SG

'There he is, daddy!'

In the children's speech between 1;10 and 2;10, nominal referents mostly belong to the immediate extralinguistic or linguistic context or have unique referents like i mamá 'the mummy'. The definite article is therefore usually redundant for determining reference. When there is a choice among possible referents, demonstratives may be used for clarification. Since the article also plays a minor role for number or case marking (2.2.2.1), it carries a small functional load in child speech through the end of the third year. It is therefore not surprising, that in early child Greek, it is often omitted where grammatically required by the standard language. However, the fact that it is never overused with nouns in the vocative case and nearly never misused for indefinite reference shows that the development of the definite article as a grammatical category is well under way.

At 1;10, Mairi not only uses the indefinite article productively, restricting it to appropriate contexts, but also contrasts the indefinite article with zero. With mass nouns, she neither overuses the indefinite article in a partitive sense (42a) nor for marking specific indefinite reference (42b). Although the indefinite article énas is identical to the numeral, rather than carrying a numeral meaning as in (42d), it most often marks indefinite reference in Mairi's data (example 42c).

(42) Mairi 1;10

(a) na dhos-(is) ner-áki.
MOD.PTL give:PFV-(NONPAST:2SG)
water-DIM:NEUT:ACC:SG
'You should give water.'

(b) dhen (íne) aftó kreatáki, supúla íne.
not (is) this meat:DIM, soup:DIM is
'This is not meat, but soup.'

(c) [Mairi is going to get herself a ladle from the kitchen]
MOT: ti thélis, aghápi mu?
'What do you want, my love?'
MAI: mía kutála.
'A ladle.'

(d) MOT: dhen thélo.
'I don't want [more soup].'
MAI: mía kutaljá supúla.
'One spoonful of soup.'

In standard Greek, use of the indefinite article with count nouns emphasizes the singularity of an unidentified specific referent, whereas its omission lends a kind of partitive meaning to the noun.[16] It is, of course, difficult to judge whether child expressions with and without an indefinite article, such as (42c) and (43a), differ in meaning. In any case, when used for indefinite specific

reference the indefinite article exclusively occurs with nouns referring to easily isolatable objects such as houses, towers, building blocks, and spoons, especially in the context of verbs like káno 'make' or ftjáxno 'construct' the objects of which refer to individual items (example 43b). In contrast to this, nouns usually occur without an article in contexts of classification (example 43a).

(43) Mairi 1;10

(a) MOT: ti íne aftó?
'What is this?'
MAI: aeropláno.
airplane

(b) MOT: ti tha ftjáksume?
'What are we going to build?'
MAI: éna pírgho.
a tower

Although, between 2;4 and 2;10, Mairi continues to use articleless nouns for naming or labelling, she often dispenses with the article in sentences containing the verb ftjáxno 'construct', as is common in the standard language (44a). This is what Janna has been doing from the very beginning.

(44) Mairi 2;4
na f(t)jáksume oré-o kíp-os (for kíp-o)
MOD.PTL construct:PFV-NONPAST:1PL nice-MASC:ACC:SG

garden-MASC:NOM:SG (for 'MASC:ACC:SG')
'Let's make a nice garden.'

The only examples in which Janna uses the indefinite article are two instances of classifying a specific referent when looking at a picture book (examples 45). This is the kind of context in which the indefinite article also variably occurs in Theophanopoulou-Kontou's experimental data when subjects answer the questions ti íne edhó? 'what is here?' or ti vlépis edhó? 'what do you see here?'

(45) (a) Janna 2;4
ke íne mía xelóna
and is a tortoise

(b) Janna 2;10
kíta ke énas líkos
look:IMP:SG also a wolf

In contrast to Janna, Maria seems to have developed a special liking for the indefinite article by 2;4, when 37% of her 49 article tokens are indefinite (as compared to 13% of Mairi's 207 tokens). While furnishing parallel constructions with and without an indefinite article (46a vs. 46b), she even sometimes supplies it in contexts where her grandmother does not use it (46c).

(46) Maria 2;4
(a) (na) vál-ume éna sedóni
(MOD.PTL) put:PFV-NONPAST:1PL a sheet

'Let's put a sheet.' [on a bed]

(b) metá na vál-ume ke sedóni
later MOD.PTL put:PFV-NONPAST:1PL and sheet
'Later let's also put a sheet.'

(c) GRA: meghál-o k3enúrj-o [= dhédro] tha aghorás-ume.
big-NEUT:ACC:SG new-NEUT:ACC:SG
[tree:NEUT:ACC:SG] FUT.PTL
buy:PFV-NONPAST:1PL
'A big new one we'll buy.'
MAR: éna kenúrjo meghálo.
a new big

All children correctly express indefinite plural reference by articleless nouns (47).

(47) Maria 2;4
GRA: ti mas férni?
what to.us brings? [mailman]
MAR: ghrámata.
letters

At 1;10, attributive adjectives are only found in Mairi's speech. While Janna only uses them at 2;10, the utterance sequence (48) in which the adjective characterizes the preceding noun may be considered as a not yet syntactically

integrated forerunner of attributive constructions. Between 2;4 and 2;10, only the most frequent adjectives occur in attributive constructions in addition to being used predicatively. These adjectives comprise dimensional meghálos 'big' and mikrós 'small', evaluating kalós 'good', kakós 'bad', and oréos 'nice, fine', as well as the color terms kókinos 'red' and mávros 'black'.

(48) Janna 2;4 [looking at an elephant in a picture book]
ULI.: kc afió? ti éxi brostá?
And this? What has.it in.front?
JAN: míti. meghál-i.
nose:FEM:ACC:SG big-FEM:ACC:SG

The fact that Mairi and Janna reanalyze the compound noun kokin-o-skufítsa 'red-CONN-cap' (= 'Red Riding Hood') as the phrase kókin-i skuf-ítsa 'red-FEM:NOM/ACC:SG cap-DIM:FEM:NOM/ACC:SG' proves that, by 2;10, they are familiar with attributive adjective constructions. Another example is Mairi's both grammatically and semantically deviant phrase palj-ó lík-o 'bad-MASC:ACC:SG wolf-MASC:ACC:SG' discussed in 2.2.2.2.

While attributive adjectives are usually placed in front of the noun (example 49a), they may be postponed when emphasized. Such constructions, in which the definite article must be repeated before the adjective, are found at 2;4 and 2;10 (example 49b). Another possibility of stressing the adjective it to prepose it and repeat the definite article immediately before the noun. Such constructions occur at 2;10 (example 49c). Example (49d), in which Maria

choses the latter possibility before her self-repair and the former one after it, proves that she is aware of both possibilities.

(49) (a) Mairi 1;10
(éxi) ke meghál-a dhódj-a.
has also big-NEUT:ACC:PL tooth:NEUT-ACC:PL
'He also has big teeth.'

(b) Janna 2;10
ke emís éxume alifí tétj-a.
and we have:1PL balm:FEM:ACC:SG such-FEM:ACC:SG
'We also have such balm.'

(c) Maria 2;10
ke tha vro ke ton meghál-o ton lík-o.
and FUT.PTL find:PFV:NONPAST:1SG also the:MASC:ACC:SG
big-MASC:ACC:SG the wolf-MASC:ACC:SG
'And I'll also find the big wolf.'

(d) Maria 2;10
thélo na páo (s)-ton alithinó to // (s)-to kabiné to alithin-ó.
I.want MOD.PTL I.go (to)-the:MASC:ACC:SG true the, (to)-
the:NEUT:ACC:SG toilet:NEUT:ACC:SG the true-NEUT:ACC:SG
'I want to go to the real bathroom.'

When the referent is known to the hearer, adjectives used with or without the indefinite article express unspecific indefinite reference (example 50a) while adjectives accompanied by the definite article express definite reference (50b). Examples of both indefinite and definite reference occur with Mairi at 1;10 and with Janna and Maria by 2;4.

(50) (a) Mairi 1;10

tha pár-o kenúrj-o

FUT.PTL take:PFV-NONPAST:1SG new-NEUT:ACC:SG

'I'll take a new one (=hat).'

(b) Mairi 2;4

éla na vál-o to mikr-ó.

come:IMP MOD.PTL put:PFV-NONPAST:1SG the

little-MASC:ACC:SG

'Let me put the little one (=building block).'

Noun phrases comprising a genitive attribute or a restrictive relative clause first appear at 2;10. While attributive noun phrases may precede or follow the head noun (examples 51), relative clauses invariably follow it (52a). It is interesting to note that after having taken three steps for building up the complex noun phrase in (52a), Janna resimplifies it when using it in her sentence. To avoid the complexity of noun phrases accompanied by a relative clause, Mairi sometimes places antecedent and relative clause into separate utterances (52b).

(51) (a) Maria 2;10

ke aftós íne mes to // mes ti jajás to píti?

for ke aftós íne mésa s-tis jajás to spíti?

and this.one is inside in-the:FEM:GEN:SG granny:FEM:GEN:SG

the:NEUT:ACC:SG house:NEUT:ACC:SG

'And this one (= wolf) is inside Granny's house?'

(b) Janna 2;10

ULL: ti kratái?

what holds

'What is she holding?

JAN: ta luludh-áki-a tis jajás.

the:NEUT:ACC:PL flower-DIM:NEUT-ACC:PL of.the

granny's

'Granny's flowers.'

(52) (a) Janna 2;10

jatí # o kinighós // aftós o kinighós # pu íne s-tin ikóna #

why the hunter // this the hunter who is on-the picture

jatí éxi to óplo tu aftós o kinighós?

why has the weapon of.him this the hunter

'Why does this hunter who is on the picture have his weapon

with him?'

(b) Mairi 2;10

MOT: ti frúto?

'What fruit?'

MAI: f(r)úto. pu t(r)óne.

fruit which they.eat

'Fruit which people eat.'

In Mairi's data from 2;10, there are some examples of rather loosely constructed nominal groups expressing possession in which the possessor is rendered by a prepositional phrase (example 53). Such constructions may be explained by the fact that, on the one hand, prepositional phrases introduced by se or apó represent very common locative expressions and, on the other, use of a genitive phrase demands a tighter syntactic integration (e.g., s-to spíti tis jajás 'in-the:ACC house of.the granny:GEN'). Less strongly grammaticalized prepositional phrases such as example (54) may even be preferred to genitive phrases by the children when the referent noun occurs in a separate utterance (Stephany, 1992, p.296). However, prepositional phrases introduced by apó and expressing possession are not only found in school children's oral narrative discourse but even in that of adults, especially in a kindergarten teacher's story told to 5-year-olds (examples 55). This colloquial usage diverges from what Mackridge (1985, p.204) states for more formal standard MG, namely that prepositional phrases containing apó can only be used "instead of the genitive in circumstances where there is no sense of possession."

(53) Mairi 2;10

MOT: ti íne edhó?

what is here?

MAI: o lík-o(s).

the:MASC:NOM:SG wolf-MASC:(NOM):SG

s-ti jajá to spíti.

at-the:FEM:ACC:SG granny:FEM:ACC:SG

the:NEUT:ACC:SG house:NEUT:ACC:SG

'The wolf. At Granny's house.'

(54) Mairi 2;10 (Stephany, 1992, p.296)

MOT: i mamá pian-ís? pianís i mamá?

the mummy who-FEM:GEN:SG? whose mummy?

MAI: apó tin kokinoskuf-ítsa.

from the:FEM:ACC:SG red.cap-DIM:FEM:ACC:SG

instead of tis kokinoskuf-ítsas

the:FEM:GEN:SG red.cap-DIM:FEM:GEN:SG

(55) 5;6 (Stephany, in prep.)

ídhe ti foljá apó tis mélis-es

saw the nest from the:FEM:ACC:PL bee-FEM:ACC:PL

for ídhe ti foljá ton melis-ón

saw the nest the:GEN:PL bee-FEM:GEN:PL

'He saw the bees' hive.'

2.3.2.2. Heading for the Clause

Many of the children's utterances do not contain a predicative expression and merely consist of a noun phrase the function of which may be determined by the extralinguistic context or by a preceding utterance. Spontaneous utterances

consisting of a noun in the vocative or a nominalized adjective serve to get a person's attention (e.g., manúla mu! 'mummy of.me!' (= 'my mummy!'), babá! 'daddy!', kalé! 'dear!'). Definite nominative noun phrases are used to draw attention to things known to both speaker and hearer (e.g., o pí(r)gho(s)! 'the tower!', i kúk(l)a mu. 'the doll of.me' (= 'my doll')). The referents of such noun phrases may also be objects of volition. In order to render such utterances more effective, the noun is often constructed with a clitic expressing first person possessor (56a). Definite noun phrases referring to persons may express desire for action (56b). Unmarked nominative/accusative forms of neuter or feminine nouns, typically unaccompanied by an article, occur in naming contexts (56c).

(56) (a) Mairi 1;10 (wanting to get the toy pistol a boy's)
to pi(s)tóli mu!
the pistol of.me
'My pistol!'

(b) Mairi 1;10 (while the interlocutor is drawing a squirrel)
k-i méri!
and-the Mairi
'Mairi, too!'

(c) Janna 1;10
JAN: me.
FAT: aftó íne me.
'This is a "me".'

MOT: pés-to arn-áki! dhe thélo na to les me. arn-áki.
say-it lamb-DIM not I.want MOD.PTL it you.say "me"
lamb-DIM
'Call it "lamb". I do not want you to call it "me". lamb.'
JAN: anáki.

Many of the children's verbless utterances are reactive. When answering wh-questions, for instance, young learners have the opportunity of furnishing single arguments fulfilling different functions in well-defined syntactic frames (examples 57).

(57) Mairi 1;10
(a) MOT: pjos íne aftós?
who is this.one?
MAI: o thí-os.
DEF.ART:MASC:NOM:SG uncle-MASC:NOM:SG

(b) MOT: ti vlépis?
what you.see?
MAI: to t(r)éno.
the:NEUT:ACC:SG train:NEUT:ACC:SG

(c) MOT: se pjo na dhóso?
to whom MOD.PTL I.give
MAI: (s-tin) kopéla.
(to-the) girl

(d) MOT: pu pijéni?
where goes (= toy train)
MAI: s-to pí(r)gho.
to-the tower

Question-answer sequences are also produced by the children themselves (example 58).

(58) Mairi 1;10
(af)tó íne? - a(f)tó íne # a(r)n-áki.
this is? - this is lamb-DIM
'What's this? - This is a lamb.'

Complete linguistic expression of single propositions or of several consecutive predications is sometimes achieved by child-adult verbal interaction (examples 59).

(59) (a) Spiros 1;10 (putting a toy doll into a hole)
SPI: ópa! tó(r)a. ópa!
INTERJ there INTERJ
ULL: bík-e.
enter:PFV-PAST:3SG
SPI: (o) bab-ás # (s-tin) t(r)ípa.
(the) daddy-MASC:NOM:SG (in-the) hole

(b) Mairi 1;10
MAI: (tha) fá-i.
(FUT.PTL) eat:PFV-NONPAST:3SG
MOT: ti tha fái?
what FUT.PTL eat:PFV-NONPAST:3SG
MAI: karabé for kurabjé [kind of sweet]

(c) Mairi 1;10
MAI: éxi papúts(j)a (i) thía.
has shoes (the) aunt
MOT: éxi papútsja i thía? éxi.
'Has the aunt got shoes? She has.'
MAI: íjis? for ídh-es?
see:PFV-PAST:2SG
'You see?
MOT: ídhes? éxi k-i thía papútsja.
you.saw? has also-the aunt shoes
MAI: k-i méris. for k'i méri
also-the Mairi
MOT: k-i méri éxi.
also-the Mairi has

Utterance sequences in which referents or predicates are mentioned in isolation (example 60a) before eventually being integrated into a clause (60b, c), are particularly characteristic of the children's speech at 1;10.

(60) (a) Mairi 1;10

sa pési. o meghálo pígho.

for tha pés-i. o meghál-os pírgh-os.

FUT.PTL fall:PFV-NONPAST:3SG the:MASC:NOM:SG

big-MASC:NOM:SG tower-MASC:NOM:SG

'It will fall down. The big tower.'

(b) Mairi 1;10

to pipil-áki mu. tha pár-o # to pipiláki mu.

the tranquillizer-DIM of.me FUT.PTL take:PFV-NONPAST:1SG the tranquillizer-DIM of.me

'My tranquillizer. I'll take my tranquillizer.'

(c) Janna 1;10

dadá kán-o. tút-o. túto dadá káno.

spanking do-NONPAST:1SG this-NEUT:ACC:AG

'I spank. This. I spank this.'

When gradually constructing small texts at 1;10, children will sometimes even use anaphoric pronouns (examples 61).

(61) (a) Mairi 1;10

kán-o kúnja. ta pedh-áki-a. kúnja.

do-NONPAST:1SG swing the:NEUT:ACC:PL

child-DIM:NEUT-ACC:PL swing

ta kratá-o eghó.

them:NEUT hold:IPFV-NONPAST:1SG I

'I swing the children. I hold them.'

(b) Spiros 1;10

i babúli. klíni # túto. úla.

for to portofóli. na klís-i túto. i úla.

the wallet MOD.PTL close-3SG this.one the Ulla

o klíni # úla. for na to klís-i i úla.

MOD.PTL it close-3SG the Ulla

'The wallet. She shall close this. Ulla. Ulla shall close it.'

2.3.2.3. Argument Structure and Predication

Argument Structure

As stated in 1.1.4.1, word order in MG declarative clauses is pragmatically rather than syntactically determined and, as is common in null subject languages, the pragmatically most neutral order is V-S-O, rather than S-V-O, which results from subject thematization (Philippaki-Warburton, 1982, 1984). Explicit subject marking is governed by pragmatic principles (Philippaki-Warburton, 1989, p.30; Tsimpli, 1991). Since child-adult or child-child dialogues typically refer to the speech event, subjects are often not explicit but are marked on the verb form, and objects are commonly expressed by deictic or anaphoric clitic pronouns.

Clitic object pronouns precede the verb in non-imperative forms and follow it in the imperative (example 62a). The very few errors with pronoun position are of two types: either non-imperative verb forms are constructed with an

enclitic instead of a proclitic object pronoun (three tokens from Mairi at 1;10 and from Mairi and Maria at 2;4) (62b), or the clitic indirect object pronoun is attached to the non-clitic direct object pronoun instead of the verb (62c). There are a few examples from Mairi at 1;10 where it is unclear whether the form to is a reduced form of the emphatic pronoun aftó 'this' or represents a wrongly placed clitic (62d).

(62) (a) Mairi 1;10
anikséto! a ton aníto. for aniks-é-to! na to aníks-o.
open:PFV-IMP:SG-it! MOD.PTL it
open:PFV-NONPAST:1SG
'Open it! Let me open it.'

(b) Mairi 2;4
é-pes-e me instead of mu épese
AUGM-fall:PFV-PAST:3SG me:ACC (instead of me:GEN)
'I dropped it.'

(c) Mairi 1;10
fólise ató mu! for fór-es-é-mu aftó!
wear-PFV-IMP:SG-me:GEN this
'Put this on me!'

(d) Mairi 1;10
tha va to mésa? for tha vál-o aftó mésa?
FUT.PTL put:PFV-NONPAST:1SG this inside

or tha to válo mésa?
FUT.PTL it put:PFV-NONPAST:1SG inside
'Shall I put it inside?'

When a verb is constructed with two proclitic pronouns, the genitive precedes the accusative (Mackridge, 1985, p.22f.) (63a). Although grammarians prescribe this order for enclitic pronouns as well, the reverse order accusative-genitive is equally possible (Theophanopoulou-Kontou, p.c.) and marginally attested in the children's input data. While there are some child examples of this order at 1;10 (63b), it is the only order attested in both Mairi's and Maria's data at 2;4 and 2;10, when constructions with two clitic pronouns have become productive. Why should the children exclusively use the order of the accusative preceding the genitive clitic? An explanation coming to mind is that in imperative verb forms accompanied by a single clitic the clitic pronoun is much more often accusative (e.g., dhos-to! 'give:PFV:IMP-it') than genitive (e.g., dhós-mu! 'give:PFV:IMP-me:GEN'). Examples such as (63b) may therefore be based on imperative verb forms constructed with an accusative clitic to which a genitive pronoun has been added.

(63) (a) Mairi 2;10
na mu to dhín-is.
MOD.PTL me:GEN it:ACC give:IPFV-NONPAST:2SG
'You should give it to me.'

(b) Spiros 1;10
kalokaló zós-to-mu! for parakaló dhós-to-mu

please give:PFV:IMP-it:ACC-me:GEN

'Please, give it to me!'

When a verb is constructed with two pronouns, most often only one of them is a clitic and the other one an emphatic. In such cases, the emphatic pronoun is external to the more tightly linked group of verb and clitic and either follows or precedes it (examples 64).

(64) Mairi 1;10

(a) mamá, dhos-mu a(f)tó!

mummy, give:PFV:IMP-me:GEN this

(b) na ta pár-o eghó.

MOD.PTL them:NEUT take:PFV-NONPAST:1SG I:NOM

'Let me take them.'

The following exposition of the development of the clause is restricted to non-imperative and non-interrogative utterances containing a verb form and one or more core arguments corresponding to the subject and the direct or indirect object of the adult language. As far as word order is concerned, both preverbal and postverbal position of a single core argument expressed by a noun phrase or a non-clitic pronoun are attested from 1;10 through 2;10 (exmples 65 and 66). Postverbal position of the argument is much more frequent than preverbal position, however. While, in the three periods of observation, the subject is postponed in 82% of tokens (range 69% to 100%; N = 193), non-clitic objects follow the verb even more often (89% of tokens; range 62% to 100%; N =

375). This distribution closely follows the input language where, in a sample of non-interrogative, non-imperative clauses with explicit subject and/or non-clitic object used by Mairi's mother when addressing her daughter at 1;10, 74% of clauses are V-S as opposed to S-V (N = 57) and 93% are V-O as opposed to O-V (N = 46).

(65) Spiros 1;10

(a) kopéla # fífi for i kopéla tha fij-i

the girl FUT.PTL leave:PFV-NONPAST:3SG

'The girl is going to leave.'

(b) aníki úla for na to aníks-i i úla

MOD.PTL it:ACC open:PFV-NONPAST:3SG the Ulla

'Ulla shall open it.'

(66) (a) Maria 2;4

férn-i fagh-áki

bring:IPFV-NONPAST:3SG food-DIM:NEUT

'She brings food.'

(b) Janna 2;4

míti éxi

nose has

In non-interrogative, non-imperative sentences in which both core arguments are expressed by non-clitic pronouns or noun phrases, the two pragmatically

least marked word orders, V-S-O and S-V-O, are attested with all children in the three periods of observation. In addition, V-O-S is rather frequently found at 1;10 and 2;4, but not at 2;10. O-V-S is only attested in two tokens at 1;10. None of the children uses the highly marked S-O-V order. At 2;10, V-S-O and S-V-O are the only orders to be found; they occur with about equal frequency.[17] Since the subject mostly follows the verb in sentences containing a proclitic object pronoun as well as in cases where the subject is the only explicitly expressed argument, the order V-S is much more frequent than S-V overall. Child Greek thus conforms to the most natural word order of the standard language (Philippaki-Warburton, 1982, p.102; 1984).

Given that grammatical functions of verb arguments are not syntactically expressed by word order and that marking of the nominative case is not consistent in early child Greek, the question is whether there is as yet evidence for the development of the grammatical function of subject. Evidence comes from person and number agreement. Even in the absence of case marking, subject and verb nearly always agree in person and number already by 1;10. Mairi uses both first and third person singular subjects with first and third person singular verb forms, respectively, with the latter being by far the most frequent. Spiros' and Janna's explicit subjects are all third person singular, constructed with third singular verb forms. Since the children have begun to contrast first to third person singular verb forms (see 2.2.3.2), the fact that they use the third person singular with singular noun subjects may be taken as evidence for agreement.[18] In spite of the fact that case is not yet a reliable marker of the functions of subject and object, examples of case errors with accusative noun phrases being used for subjects or nominative ones for objects

are very rare. Thus, case has begun to emerge as a grammatical category. Nevertheless, in child Greek of the second half of the second year, it is person agreement rather than case morphology which evidences that the grammatical function of subject has started to develop.

As stated in 2.2.2.1, most subjects and objects of early child Greek are semantically prototypical in that the former are animate while the latter are inanimate. Since inanimate subjects are mostly used with intransitive verbs (67a), and animate objects either rank lower on the agency scale than the corresponding subjects (67b) or do not agree with the verb in person or number and do therefore not qualify as possible subjects (67c), examples in which, in the absence of proper casemarking, the function of noun phrases has to be determined from context are infrequent (67d).

(67) Mairi 1;10

(a) to tréno pijéni
'The train goes (= moves)'

(b) a tais-o to písik-os
PTL feed:PFV-NONPAST:1SG DEF.ART:MASC:ACC:SG
monkey-MASC:NOM:SG
for na tais-o ton píthik-o
MOD.PTL feed:PFV-NONPAST:1SG
DEF.ART:MASC:ACC:SG monkey-MASC:ACC:SG
'Let me feed the monkey.'

(c) na ta zízes ta pedhákja
for na ta dhis ta pedh-a'kj-a
MOD.PTL them:NEUT see:PFV:NONPAST:2SG
the:NEUT:PL children-DIM:NEUT-PL
'You should have a look at the babies.'

(d) aghapái mamá
loves mummy

Since MG word order in declarative sentences serves pragmatic rather than grammatical functions, word order regularities must be studied beyond clause boundaries. In Mairi's speech at 1;10, preposed subjects are thematic, resuming arguments of a preceding utterance (example 68a), while in sentences introducing a new topic of conversation and containing all new information subjects are postponed (68b). Emphasized subjects bearing contrastive stress may occur either pre- or postverbally (68c, d).

(68) Mairi 1;10

(a) n éxi písiko (ACC:SG) kapélo, ka náni. na to váli (3SG) káni náni. o (NOM:SG) písiko (ACC:SG) káni náni.
for dhen éx-i o píthik-os kapélo.
not has the:MASC:NOM:SG monkey-MASC:NOM:SG hat:NEUT:SG
na kán-i náni.
MOD.PTL make-NONPAST:3SG beddy-bye.
na to vál-o na káni náni.
MOD.PTL him put:PFV-NONPAST:1SG MOD.PTL

make:3SG beddy-bye
o píthikos káni náni.
the monkey makes beddy-bye
'The monkey does not have a hat. He shall go beddy-bye. Let me make him go beddy-bye. The monkey goes beddy-bye.'

(b) k(l)ist-á ta xe(r)ja!
closed-NEUT:PL the:NEUT:PL hands:NEUT:PL
th-á(r)th-i (o) babúl-as.
FUT.PTL-come:PFV-NONPAST:3SG (the)
bogyman-MASC:NOM:SG
tha se fa-i.
FUT.PTL you:ACC eat:PFV-NONPAST:3SG
'Close your hands! (Otherwise) bogyman will come and get you.'

(c) MOT: éla edhó káto na kathís-is.
come:IMP here down MOD.PTL sit:PFV-NONPAST:2SG
'Come and sit down here.'
MAI (after having sat down):
i mamá katíti for i mamá na kathís-i
the mummy MOD.PTL sit:PFV-NONPAST:3SG
'Mummy shall sit down.'

(d) MOT: fa aftó!
eat:IMP this
MAI: eghó. eghó egho.

me. me me.

MOT: esí esi.

you you

MAI: na fá-i (i) mamá lígho.

MOD.PTL eat:PFV-NONPAST:3SG (the) mummy little

'Mummy shall eat a little.'

By 2;4, a tendency towards the more common V-S order can be found in Mairi's speech, and, at 2;10, a few postponed thematic subjects occur. V-S order is even more dominant in the other three children's speech. While, at 1;10, Janna does not yet express explicit subjects, in Spiros' few instances of S-V order, the subject is either emphasized (69a) or is part of a losely connected sequence of noun and verb (69b).

(69) Spiros 1;10

(a) MOT: to píre i gháta.

it:ACC took the cat

SPI: náta!

'There they are!'

ULL: náta. ta vríkes?

there.they.are them you.found

SPI: úla endídike. for i úla tá-krips-e

the ulla them-hide:PFV-PAST:3SG

'Ulla hid them.'

(b) (looking at a picture)

kitáa atí. kopéla # pézi.

for kithára ínc aft-í.

guitar:FEM:NOM:SG is this-FEM:NOM:SG

i kopéla péz-i.

the girl play:IPFV-NONPAST:3SG

'This is a guitar. The girl is playing.'

While Maria's preposed subjects at 2;4 and 2;10 are either thematic or emphasized, she sometimes repeats a preposed thematic subject after the verb, thus conforming to the basic V-S order (70).

(70) Maria 2;4

GRA: pjos tó-kane to mimí?

who it-did the boo-boo

'Who gave you a boo-boo?'

MAR: i bégi mee // píe mja velón i bégi. for

i pégi // píre mja velóna i pégi

the Peggy // took a needle the Peggy

'Peggy took a needle.'

A good example with a postponed subject (aéras 'air') in a context of all new information followed by a sentence where the thematic subject is preposed is a passage from Janna's data at 2;10 cited in (71).

(71) Janna 2;10

éxi xalási i póta mas. béni aéra ke ti aníje.

béni aéra. aéra béni. tin aníji.

for éxi xalási i pórta mas.

has broken the door of.us

béni aéras ke tin aníji.

enters air and it:ACC opens

béni aéras. aéras béni. tin aníji.

enters air. air enters. it:ACC opens.

'Our door has broken. Air comes in and opens it. Air comes in.

Air comes in. It opens it.'

Emphatic object pronouns and object noun phrases are typically postverbal. Throughout the child data (as well as the input), proclitic pronominal objects are much more frequent than object noun phrases, however, and the most common word order of such sentences containing an explicit subject is CL.O-V-S (72).

(72) Maria 2;10

(tha) se (s)kotós-i i mána su.

(FUT.PTL) you:ACC kill:PFV-NONPAST:3SG the mother of.you

'Your mother will kill you.'

In clauses in which the object is simultaneously expressed by a clitic pronoun and an object noun phrase with identical referents, the object is explicitly thematized; it therefore "cannot be rhematic, and cannot be the focus"

(Philippaki-Warburton, 1984). Although both CL.O-V-O and O-CL.O-V orders occur (examples 73a and 73b, respectively), the first of these, with the object noun phrase appended like a specification, is much more frequently attested in the children's data and can be found in Mairi's speech already by 1;10. Some of the examples with a thematized object also contain an explicit subject. Clauses in which the indirect object is resumed by a clitic are much rarer (73c). The emphatic first person object pronoun of example (73c) is contrastively stressed and is therefore in focus.

(73) Janna 2;10

(a) JAN: to sávato pu píghame s-tin eklisía

the Saturday when we.went to-the church

'On Saturday when we went to church'

ULL: évrexe?

it.rained

JAN: ne. ke dhen pírame tin ombrel-ítsa mas mazi mas.

yes and not we.took the ombrella-DIM of.us with us

tóra? tha páme na tin párume.

now? FUT.PTL we.go MOD.PTL it:ACC we.take

na tin párume tin ombrelítsa mas.

MOD.PTL it:ACC we.take the:ACC ombrella of.us

'Yes. And we did not take our ombrella with us. Now?

We are going to get it; get our ombrella.'

(b) ULL: ke pos ta léne aftá ta mikrá?

and how them they.call those the small

'And what are those small ones called?'

JAN: **aftá ta léne aftjá**.
those them they.call ears
'They are called ears.'

(c) (while Ulla is reading to Janna from a book)
k-eména mu dhiavázi i mamá ta vivlía mu.
and-me:GEN me:GEN reads the mummy the books me:GEN
'Also to me Mummy reads my books.'
(instead of k-i mamá mu dhiavázi ta vivlía mu
'also-the mummy to.me reads the books of.me')

At 1;10, indirect objects referring to the speaker and expressed by the genitive clitic pronoun mu are most commonly constructed with imperative verb forms (74a). With non-imperative forms, indirect objects referring to second or third person are sometimes omitted (74b) or are expressed by an accusative instead of a genitive (74c); errors with person also occur in shifting contexts (74d). In the following two periods of observation at 2;4 and 2;10, the number of such errors decreases and genitive and accusative clitic pronouns are more often used with non-imperative verb forms (75).

(74) Mairi 1;10

(a) káte mu éna pígho! for fjáks-e mu énan pírgh-o
construct:PFV-IMP me:GEN INDEF.ART:NOM:ACC:SG
tower-MASC:ACC:SG
'Construct a tower for me!'

(b) (after a toy monkey has been put into sitting position)
(n)a (tu) dhós-ume # kurab(j)é.
MOD.PTL (he:GEN) give:PFV-NONPAST:1PL kurabjé
[kind of sweet]
'Let's give him some kurabjé.'

(c) (talking about toy monkey's injury)
tu pé(r)as-e. (tha) to (for tu (?)) perás-i, mamá.
he:GEN pass:PFV-PAST:3SG (FUT.PTL) he:ACC (for he:GEN?)
pass:PFV-NONPAST:3SG
'It's over. It will be over (He will get over it (?)), Mummy.'

(d) MOT: dhe s'arés-i?
not you:GEN please-NONPAST:3SG
'Don't you like it?'
MAI: e s'aési for dhe m'arési
not you:GEN (for me:GEN) pleases
'You (instead of 'I') don't like it.'

(75) Mairi 2;10
tha mu to pár-i i maría
FUT.PTL me:GEN it:ACC take:PFV-NONPAST:3SG the Maria
'Maria is going to take it away from me.'

Genitive noun phrases occur much more rarely in the children's data than genitive pronouns and formal errors remain through 2;10. Such phrases are most often constructed with íne 'is, are' to express possession (76a, b). By 2;10, they also occur with full verbs and function as benefactives (76c).

(76) (a) Janna 1;10

GRA: tínos íne i tsáda?
whose is the bag:FEM

JAN: kokó mu for dhik-ó mu
own-NEUT:SG me:GEN
instead of dhik-í mu
own-FEM:SG me:GEN
'Mine.'

ULL: óxi
no

JAN: íne nanúla for íne tis an-úla-s
is the:FEM:GEN:SG Ann-DIM:FEM-GEN:SG
'It's Ann's.'

(b) Maria 2;10

íne ti (OBL) mamá (NOM/ACC) su to vivlío? for
íne tis mamá-s su to vivlío?
is the:FEM:GEN:SG mummy-FEM:GEN:SG you:GEN the book
'Does the book belong to your mummy?'

(c) Mairi 2;10

MOT: ti ékane o kinighós?
what did the hunter

MAI: o kinigh-ós # tu lík-u # é-val-e pétr-es mésa.
the:MASC:NOM:SG hunter-MASC:NOM:SG
the:MASC:GEN:SG wolf-MASC:GEN:SG
AUGM-put:PFV-PAST:3SG stone-PL inside
'The hunter put stones inside the wolf.'

While, with pronouns, the benefactive function can only be expressed by the genitive, genitive noun phrases alternate with prepositional phrases commonly containing the semantically unspecific preposition se 'to'. When addressing her daughter at 1;10, Mairi's mother uses genitive noun phrases for expressing the benefactive relation with a greater diversity of verbs than se phrases. Verbs constructed with genitive phrases are dhíno 'give', férno 'bring', pérno 'take', fijáxno 'make', lípo 'miss'. With the verb léo 'tell', prepositional phrases predominate in her speech. The other mothers also use the verbs dhíno 'give', dhíxno 'show', miláo 'speak', xarízo 'give (as a present)' with se 'to' for the benefactive. In the children's data, prepositional phrases introduced by se 'to, at' almost exclusively serve locative functions to be dealt with below. Since the genitive is not always formally marked in the children's speech and the preposition se, which reduces to the consonant in front of the definite article, is often missing, most of the few examples of nominal benefactives found through 2;4 are formally indeterminate between genitive and prepositional phrase (example 77a). In spite of the fact that the preposition se is omitted and the nominative/accusative neuter noun phrase ála pedhákja 'other

little.children' is thus not marked for the benefactive function, this example is unambiguous. Since the animate noun pedhákja does not agree with the verb and does therefore not qualify as subject and the unmarked inanimate noun fagháki can only be interpreted as an object, the phrase ála pedhákja can only function as a benefactive.

(77) Maria 2;4

(a) na váz-o eghó atá vatólj-a ti kúka.
MOD.PTL put:IPFV-NONPAST:1SG I those:NEUT:ACC:PL
bracelet-NEUT:ACC:PL the:OBL doll:NOM/ACC
for na vál-o eghó aftá ta vraxólja tis kúkla-s/s-tin kúkla
MOD.PTL put:PFV-NONPAST:1SG I those the bracelets
the:FEM:GEN:SG doll-FEM:GEN:SG/on-the:ACC doll:ACC
'Let me put these bracelets on the doll.'

(b) tóra férn-i (s-ta) ála pedh-ákj-a fagh-áki.
now bring:IPFV-NONPAST:3SG (to-the) other children-DIM-PL
food-DIM
'Now it (= mother bird) brings food to the other little ones.'

To summarize, in child Greek, the formal distinction of the functions of benefactive and direct object (genitive vs. accusative) appears earlier with clitic pronouns than with nouns. Nouns marked for genitive do not at first occur with full verbs, but are used either attributively or predicatively (constructed with the copula íne 'is') and function as possessor. Since prepositional phrases introduced by se nearly exclusively have locative

meaning through 2;10, the first unambiguously benefactive noun phrases occurring with full verbs are in the genitive.

Although, by 2;4, the children sometimes express benefactive meaning by the preposition ja 'for' (example 78a), it mainly occurs with inanimate nouns expressing purpose (78b). Probably due to its non-assimilating phonetic behavior, ja is rarely missing where grammatically required.

(78) (a) Janna 2;10
na pa-s mésa s-to dhásos.
MOD.PTL go:PFV-NONPAST:2SG inside in-the wood
na mazéps-(is) luludh-ákj-a ja ti jajá.
MOD.PTL gather:PFV-(NONPAST:2SG) flowers-DIM-PL for
the:ACC granny:ACC
'You shall go into the wood and gather flowers for Granny.'

(b) Mairi 2;4
aftó íne ja záxari
this is for sugar

By 2,4, the preposition me 'with' is used to express comitative and instrumental meanings (examples 79a to 79c) and by 2;10, phrases introduced by me may function as prepositional objects (79d) or attributes (79e). Since me retains its syllabic character in front of the definite article, it is also rarely missing where grammatically required.

(79) (a) Janna 2;4

ísth(era) pu pígh-ame me tin mama mu...

later where go:PFV-PAST:1PL with the:ACC mummy:ACC me:GEN

'Later on when we went with my mummy...'

(b) Mairi 2;4

(na) to vghál-(o) me to pirúni.

(MOD.PTL) it:ACC take.out:PFV-(NONPAST:1SG) with the fork

'Let me take it out with the fork.'

(c) Maria 2;10

ULL: pos jínonde mamá?

how they.become mummy

'How does one become a mummy?'

MAR: me pedhjá.

'With children.'

(d) Janna 2;10

tha péks-ume me álo peghnídhi.

FUT.PTL play:PFV-NONPAST:1PL with other toy

'We'll play with another toy.'

(e) Janna 2;10

ULL: k-edhó? ti vlépume?

and-here? what we.see?

JAN: ti kokinoskufítsa me to krasí ke me to ghlikó.

the:ACC Red.Riding.Hood with the wine and with the cake

Locatives are a more important functional category for children than temporal or manner adverbials. They are therefore not only by far the most frequent ones, but also represent the greatest lexical and formal diversity. Although they are most often expressed by adverbs, prepositional phrases already occur in Mairi's data at 1;10 and increase in the course of development. At this point of development, nouns denoting place are often left unmarked (example 80) or are accompanied by adverbs (see examples 84 below).

(80) Spiros 1;10

láli # babás # típa for na ta vghál-i o bab-ás apó tin trípa

MOD.PTL them take.out:PFV-NONPAST:3SG the

daddy-MASC:NOM:SG from the:ACC hole

'Daddy shall take them out of the hole.'

There is a single spontaneous example in Mairi's data at 1;10 where apó expresses direction away from or source (81).

(81) Mairi 1;10

MAI: pá(r)-to mamá! ól-a. ol(a) ap ta xé(rj)a.

take:PFV:IMP-it Mummy! all-NEUT:ACC:PL. all from the hands

MOT: óla tha ta pár-ume pu éx-ume s-ta xérja.

all FUT.PTL them take:PFV-NONPAST:1PL which

have-NONPAST:1PL in-the hands

'We'll take all the ones we have in our hands.'

Tokens of locative adverbs amount to about 80% of adverbs at 1;10 and range between 45% and 72% at 2;10. The ones most frequently used by all children in the three periods of observation are deictic proximal edhó 'here' and distal ekí 'there', as well as mésa 'inside'. While káto 'down, downstairs' also occurs relatively often, páno 'on top of, upstairs', ékso 'outside', píso 'behind', kondá 'near', and a few others are much rarer. Already by 1;10, the deictic particle na 'there' referring to proximal or distal referents in space is used with clitic third person pronouns or noun phrases or both (also see 2.2.2.4) (examples 82a and b). By 2;4, it is also found with verbs, expressing temporal meanings (82c). Deictic tóra 'now' is the only temporal adverb to be frequently used in the three periods of observation and is Spiros' only temporal adverb at 1;10. While, at 2;4 and 2;10, there are quite a few instances of metá 'afterwards, later' and some of ístera 'afterwards', prin 'first, before' does not occur. Of the manner adverbs only étsi 'this way' is rather frequent between 1;10 and 2;10.

(82) (a) Spiros 1;10
na to pe(dh)-áki
there the child-DIM
'There's the baby.'

(b) Spiros 1;10
ná-to(s) (o) babás
there-he (the) daddy
'There he is Daddy.'

(c) Maria 2;4
MAR: na, fágh-ane
there, eat:PFV-PAST:3PL
'There, they've eaten.'
GRA: fághane tóra
'They've eaten now.'

Already by 1;10, locative adverbs are used for specifying nouns (example 83a) or indicating the locative function of an otherwise unmarked noun (83b); they are also used for direction (83c and d). In utterances consisting of two or three constituents, these are frequently separated by pauses, and syntactic construction is accordingly loose. Thus, in (83b), the deictic adverb may be taken as specifying the referent of the locative noun trípa 'hole' or resuming the locative complement. In (83c), the locative is first expressed by an adverb and, after a pause, specified by a noun.

(83) Spiros 1;10
(a) ULL: edhó i arkúdha kitázi to skíuro ke to puláki.
here the bear watches the squirrel and the birdie
SPI: azoúki ekí # léne for aithon-áki ekí to lé-ne
nightingale-DIM there it say:IPFV-NONPAST:3PL
'This is called nightingale.'

(b) dípa # ezó # béni ató for s-tin trípa edhó béni aftó
to-the hole here enters this.one
'This one goes into the hole here.'

(c) báto ménis # sti típa for káto béni s-tin trípa
down enters to-the hole
'It goes down into the hole.'

(d) mésa. polí mis (for mésa). (af)tó mésa. polí mésa! túto mésa!
inside. much inside. that.one inside. much inside! this.one inside!

The most frequent of the relatively few, but strongly grammaticalizedand accordingly semantically unspecific MG prepositions is se 'to, at, in', which may express locative or benefactive meaning. Prepositional phrases introduced by se may be combined with semantically more concrete adverbs such as mésa 'inside' or páno 'on top of' further specifying locative relations (e.g., mésa s-to spíti 'inside in-the house'). Since, in early child Greek, se is usually lacking for phonological reasons, locative adverbs may assume the function of prepositions (examples 84a and b).[19] Utterance sequences such as (84c) in which the locative adverb and the noun it refers to "do not yet form a syntactic construction, may be considered as forerunners of prepositional phrases" such as the one in (84a) (Stephany, 1992, p.296). At 2;10, when se is less often omitted, mésa further specifies locative relations much as in standard MG (example 84d; also see example 78a above).

(84) (a) Mairi 1;10 (Stephany, 1992, p.296)
mésa (s)-to (s)píti a(f)tó pái
inside (in)-the house this.one goes

'This one goes into the house.'

(b) Spiros 1;10
mésa # kilíta babá for mésa s-tin kil-ítsa tu babá
inside in-the belly-DIM the:GEN daddy:GEN
'into daddy's (= doll's name) belly.'

(c) Janna 1;10
mésa. (s-to) (s)píti # mu
inside. (in-the) house me:GEN
'inside. in my house.'

(d) Mairi 2;10
ekí mésa ti éxi s-ti tsáda?
there inside what has in-the bag
'What is there inside the bag?'

At 1;10, locative adverbs very frequently occur in single-constituent utterances expressing location or direction. They are sometimes modified by adverbs, such as polí 'much' or páli 'again' (example 85a), or are further specified by another locative adverb (85b). At 2;10, such expressions are constructed with verbs (85c).

(85) (a) Spiros 1;10
polí mésa
much inside

'deep inside'

(b) Mairi 1;10

(i) méri (na) to vál-i. ekí káto.

(the) mairi (MOD.PTL) it:ACC put:PFV-NONPAST:3SG. there down

'Mairi would like to put it. Down there.'

(c) Maria 2;10

pégi, pái aftó edhó páno?

Peggy goes this.one here above

'Peggy, does this one go here on top?'

Through the end of the third year, locative adverbs are preferably constructed with verbs of motion such as béno 'enter', páo 'go', érxome 'come', péfto 'fall' or with verbs expressing change of place like vázo 'put', petáo 'throw', where the locative adverbials function as complements making the semantically implied goal of movement of the verb explicit (examples 86). They also occur with the copula to express location.

(86) (a) Janna 1;10

(na) búme mésa

(MOD.PTL) go:PFV:NONPAST:1PL inside

'Let's go inside.'

(b) Mairi 1;10

na to vál-ume ekí

MOD.PTL it:ACC put:PFV-NONPAST:1PL there

'Let's put it over there.'

After 1;10, not only the diversity of verbs constructed with locative complements expressing direction increases, but locative adverbs are also more often used to express location and function as adjuncts of verbs such as krívo 'hide', xorái 'it.fits', afíno 'leave', káno 'do', kimáme 'sleep', káthome 'sit (down).' The also occur with the auxiliary éxo 'have' (examples 87).

(87) (a) Mairi 2;4

ás-to káto!

leave:PFV-IMP-it:ACC down

(b) Mairi 2;4

ti káni ekí i thía?

what does there the aunt

'What is the aunt doing there?'

(c) Janna 2;4

éxi ghála edhó

has milk here

'It (a cow) has milk here./There is milk here.'

While Mairi productively uses the adverbs ekí 'there', káto 'down', and mésa 'inside' with the preposition apó 'from, out of' expressing position or source of motion (thus acting as the opposite of se; Mackridge, 1985, p.210) already by

1;10, the other children do so only by 2;4 (examples 88). In Janna's and Spiros' data at 1;10, apó ki 'from there' and apó dho 'from here' only occur in conversational routines, such as fji-e apó ki! 'leave:PFV-IMP from there' (= 'go away!').

(88) Maria 2;4

(a) apó káto ine aftó
from down is this.one
'This one is beneath (the chair).'

(b) (na) to vghál-o apó mésa?
(MOD.PTL) it:ACC take.out:PFV-NONPAST:1SG from inside
'Shall I take it out?'

In colloquial Greek, the preposition apó is semantically bleached and may be combined with locative adverbs such as edhó 'here' to express goal-oriented movement (examples 89).

(89) (a) Mairi 1;10
éla apó 'dho voltúla
come:IMP from here walkie
'Come here (to go for a) walk.'

(b) Mairi 2;4
váz-i (to) xer-áki apó mésa
put:IPFV-NONPAST:3SG (the) hand-DIM from inside

'He puts his hand inside.'

The deictic temporal adverb tóra 'now' occurs in one-word utterances or is combined with a locative adverbial (e.g., tóra mésa 'now inside'). In addition, tóra is constructed with semantically diverse verbs already by 1;10. While, in Janna's data, it only occurs with imperative or subjunctive verb forms issuing requests (example 90a), Mairi and Spiros use it with indicative non-past verb forms to comment on ongoing situations (90b), with the subjunctive to express situations about to happen, and with the perfective form pá-i 'go:PFV-NONPAST:3SG' (= 'all gone') to talk about the result of an immediately preceding action (90c).

(90) (a) Janna 1;10
síko tóra!
get.up:IMP now

(b) Mairi 1;10
to (v)lép-i tó(r)a
it:ACC see:IPFV-NONPAST:3SG now
'She (= Mairi) can see it now.'

(c) Spiros 1;10
(having inadvertently switched off the tape recorder)
pá-i tóa azétse
go:PFV-NONPAST:3SG now wheels
for pá-ne tóra i ródhes

go:PFV-NONPAST:3PL now the wheels

'The wheels have had it.'

After metá 'later' has become more frequent by 2;4, it is constructed with verbs. With the exception of examples (91), all temporal adverbs used by the children refer to the speech situation.

(91) (a) Maria 2;4

dhío enésis ékana. metá írth-a edhó.

two injections I.made afterwards I.came here

'I had two shots. Afterwards I came here.'

(b) Janna 2;4

íst(era) # pu píghame me ti mamá mu s-ti ...

later.on when we.went with the mummy of.me to-the...

As mentioned above, the only deictic manner adverb productively used by all children already at 1;10 is étsi 'this way'. In addition to occurring in one-word utterances or being accompanied by the negative particle óxi 'no, not' (e.g., óxi étsi 'not this.way') it is constructed with a variety of verbs, such as káno 'do', xaláo 'spoil', vázo 'put', béno 'enter', or káthome 'sit'.

Predication

Full predicates occurring in the children's data are main verbs, modal verbs, and predicative adjectives or nouns accompanied by the copula.

With the exception of Mairi's data at 1;10 and Janna's at 2;10, adjectives are used predicatively much more frequently than attributively in the three periods of observation (example 92a). Predicative nominals consist of a bare noun, a pronoun or a noun accompanied by an attributive adjective (92b).

(92) (a) Janna 1;10

kal-ó íne

good-NEUT:SG is

'It's alright.'

(b) Mairi 1;10

dhen íne kal-ó pedh-áki

not is good-NEUT:SG child-DIM:NEUT:SG

'He isn't a good baby.'

Ongoing processes or actions of a certain duration are typically described by indicative imperfective non-past ("present") tense forms of verbs belonging to the durative aktionsart (example 93a). The present tense is also used with stative verbs, such as kséro 'know', aghapó 'love' and pinó 'be hungry', ponó 'be in pain', nistázo 'be tired', denoting permanent or temporary states (93b and c). Examples are very frequent in the data of all children in the three periods of observation.

(93) (a) Mairi 2;4 (Stephany, 1985, p.131)

malón-une

quarrel:IPFV-NONPAST:3PL

'They are quarreling.'

(b) Mairi 1;10 (Stephany, 1985, p.135)
aghapáo # tak for aghapá-o ton ták-i
love:IPFV-NONPAST:1SG the:MASC:ACC:SG
Takis-MASC:ACC:SG
'I love Takis.'

(c) Spiros 1;10 (Stephany, 1985, p.136)
monái spíon6 for poná-i o spír-os
be.in.pain:IPFV-NONPAST:3SG the Spiros-MASC:NOM:SG
'Spiros is in pain.'
instead of ponáo
be.in.pain:IPFV-NONPAST:1SG

When the non-past indicative is used with non-durative verbs its function may be either non-actualized (example 94a) or "structural" (94b), -- as opposed to "phenomenal" (Woisetschlaeger, 1977; Stephany, 1985, p.35f.) --, characterizing the subject rather than the situation expressed by the verb.

(94) (a) Janna 1;10 (Stephany, 1985, p.133)
játes léne for ghát-es tis lé-ne
cat-FEM:ACC:PL they:FEM:ACC:PL
say:IPFV-NONPAST:3PL
'They are called cats.'

(b) Spiros 1;10 (Stephany, 1985, p.132)
MOT: na pidhíks-o na to pjás-o?
MOD.PTL jump:PFV-NONPAST:1SG MOD.PTL
it:ACC catch:PFV-NONPAST:1SG
'Shall I jump and get it (= fish)?'
SPI: gagóni for dhaNgón-i
bite:IPFV-NONPAST:3SG
'It bites.'

Although non-past indicative forms of non-durative verbs may refer to situations about to happen or planned for the immediate future (examples 95a and b), the children much more frequently use the subjunctive or future with such functions (95c and d). Since the subjunctive is not overused in statements, in which only the indicative is possible, the formal difference between indicative and subjunctive in utterances referring to the immediate future may be taken to carry meaning: While utterances with indicative non-past verb forms are centred upon the expectation or intention as such, the non-factuality and prospective character of the situation expressed is more important in utterances carrying subjunctive forms (also see Stephany, 1986, p.383). This difference becomes especially clear from a comparison of examples (95a) and (95c): While in (95a) Mairi inquires about the reasons for her aunt's decision to leave, the factuality of which is evident from ongoing preparations, in (95c) the child tries to avert an imminent action of the addressee (Stephany, 1985, p.137ff.).

(95) (a) Mairi 1;10 (Stephany, 1985, p.136)
jatí févj-is?
why leave:IPFV-NONPAST:2SG
'Why are you leaving?'

(b) Mairi 2;4 (Stephany, 1985, p.137)
to váz-o edhó
it put:IPFV-NONPAST:1SG here
'I'll put it here.'

(c) Mairi 1;10 (Stephany, 1985, p.137)
óxi mamá sa fíj-is!
no mummy FUT.PTL leave:PFV-NONPAST:2SG
for dhen tha fíjis mamá
not FUT.PTL leave:2SG mummy
'You shall not leave, mummy!'

(d) Maria 2;10 (Stephany, 1985, p.138)
tha bo edhó mésa
FUT.PTL enter:PFV:NONPAST:1SG here inside
'I'll get into here.'

Of the three past tense categories occurring in Stephany's observational data, -- the perfective and imperfective simple past and the present perfect --, only the perfective simple past is attested with all children in each of the three periods of observation. Since short actions or processes resulting in a change of states

of affairs tend to attract attention (Stephany, 1985, p.139), this tense-aspect form is especially used with punctual-telic verbs, and the rapid growth of perfective past verb tokens in the course of development is also limited to this aktionsart. Typical punctual-telic verbs are anígho 'open', béno 'enter', péfto 'fall', vázo 'put' (examples 96).

(96) (a) Spiros 1;10 (Stephany, 1985, p.139)
ná-to! mésa. tá-val-(e).
there-it inside them-put:PFV-PAST:3SG
'There it is! Inside. He (= Spiros) put them.'

(b) Janna 2;4 (Stephany, 1985, p.140)
jatí # to ániks-es?
why it open:PFV-PAST:2SG
'Why did you open it?'

The function of the perfective past in examples such as these is resultative, expressing the present result of an action. Since the action itself belongs to the past, the past tense is implied (Stephany, 1985, p.141). The resultative function of the perfective past is especially clear in examples such as (97) in which the action itself does not belong to the recent past and merely its result is relevant at speech time.

(97) Mairi 1;10 (Stephany, 1985, p.141)
ídh-e(s)? kópik-a. (pointing to a scar on her finger)
see:PFV-PAST:2SG cut:PFV:PASS-PAST:1SG

'Do you see? I cut myself.'

Although the resultative use of the perfective past is by far the most frequent in the children's data through 2;10, it is above all its non-resultative use which is important for the development of the deictic category of tense. Spiros uttered (98a) a few minutes after a broom had been put into upright position by his mother. Since the result of the situation described by the verb no longer holds at speech time, Spiros' utterance can only be taken as a report on a past event. By 2;4, the children use the past tense to refer to situations further removed from speech time (98b) or belonging to fairy-tales (98c).

(98) (a) Spiros 1;10 (Stephany, 1985, p.142)
é-pes-e (i) (s)kúpa
AUGM-fall:PFV-PAST:3SG (the) broom
'The broom fell down.'

(b) Maria 2;4 (Stephany, 1985, p.143)
(Reference is made to an event having happened a few days earlier when Maria had washed her doll)
GRA: ti tó-kan-es mes-to bánjo?
what it-do-PAST:2SG in-the bath
'What did you do to it in the bathroom?'
MAR: é-klin-a (for tó-plin-a)
AUGM-wash:PFV-PAST:1SG
(it-wash:PFV-PAST:1SG)
'I washed (it).'

(c) Mairi 2;10 (Stephany, 1985, p.143)
(looking at an illustrated fairytale book)
ULL: ke metá o líkos ti ékane? ótan ksípnise.
and afterwards the wolf what did when woke.up
MAI: péthan-e.
die:PFV-PAST:3SG

The children's capacity to order situations is evidenced by utterance sequences expressing sequences of situations. At 1;10, such sequences express the state reached at speech time and the action or event leading to it in either order (99a and 99b). By 2;4, situations may first be represented as expected and afterwards as given. Examples such as (99c) show that the childen are aware of the sequence "situation¡ not realized - situation¡ realized." This may be taken as an example of Piaget's notion of "practical time" where cause precedes effect (Stephany, 1985, 129f., 145). At the same point of development, the children also express series of situations having occurred in the past or belonging to fairy tales (99d and 99e).

(99) (a) Spiros 1;10 (Stephany, 1985, p.144)
(after having caused feedback on the tape recorder)
pái zózes. fónatse. for intended pá-i i ródh-es. fónaks-e.
go:PFV-NONPAST:3SG the wheels-PL cry:PFV-PAST:3SG
instead of pá-ne i ródhes. fónakse.
went:PFV-NONPAST:3PL the wheels cried
'The wheels (= reels) have had it. It (= tape recorder) cried.'

(b) Mairi 1;10 (Stephany, 1985, p.144)

(after hiding a building block under her legs)

kíta! ékipsa len éo.

for kíta! to é-krips-a, then éx-o típota.

look:IMP it AUGM-hide:PFV-PAST:1SG not have-NONPAST:1SG

nothing

'Look! I hid it and don't have anything.'

(c) Janna 2;10 (Stephany, 1985, p.145)

(playing with a doll and a toy pig)

to ghurunáki.

the piggy

thé(l-i) na to fá-i.

want-(NONPAST:3SG) MOD.PTL it:ACC eat:PFV-NONPAST:3SG

xap tó-faj-e to ghurunáki.

whoosh it:ACC-eat:PFV-PAST:3SG the piggy

'The piggy. It (= doll) wants to eat it. Whoosh! It (= doll)

has eaten it.'

(d) Maria 2;4 (Stephany, 1985, p.145f.)

(reporting on her visit to the doctor)

dhío énesi (SG) ékana. metá ítha edhó.

for dhío enésis é-kan-a. metá írth-a edhó.

two injection:PL AUGM-do-PAST:1SG afterwards

come:PFV-PAST:1SG here

'I had two shots. Afterwards I came here.'

(e) Mairi 2;10 (Stephany, 1985, p.146)

(commenting on the hunter in Red Riding Hood)

MOT: ke ti ékane aftós, o kinighós?

and what did this.one the hunter

MAI: évghal6 apó to líko (ACC) ti kijá #

ti jajá ke ti kokinoskufítsa # ke ton gótos6.

for é-vghal-e apó tu lík-u ti kiljá

AUGM-remove:PFV-PAST:3SG from the:MASC:GEN:SG

wolf-MASC:GEN:SG the:FEM:ACC:SG

tummy:FEM:ACC:SG

ti jajá ke ti kokin-o-skuf-ítsa ke ton skótos-e.

the:FEM:ACC:SG granny and the red-CONN-cap-DIM:FEM

and him kill:PFV-PAST:3SG

'He took Granny and Red Riding Hood out of the wolf's

tummy and killed him.'

While past tense forms are only used in discursive speech until 2;4, there are a few examples of narrative discourse at 2;10. How much discursive speech predominates is nicely demonstrated by Janna's discursive interpretation of her mother's narrative discourse in example (100).

(100) Janna 2;10 (Stephany, 1985, p.147)

(looking at a picture of Red Riding Hood's granny)

MOT: ke o líkos píje kondá s-to kreváti tis

and the wolf went near to-the bed of.her
ke xap, me mja bukjá, katápje ti jajá.
and whoosh with one bite devoured the granny
JAN: dhe(n) ti(n) katápj-e. ná-tin!
not her devour:PFV-PAST:3SG there-her
'He did not devour her. There she is!'

In contrast to the perfective past, which has come to be frequently used by 2;10, the imperfective past remains limited to 5% of simple past form tokens (N = 304) of Stephany's data (1985, p.114) and is most correctly used with durative verbs (101).[20]

(101) Maria 2;10 (Stephany, 1985, p.151)
(justifying her request of a box of sugar almonds she
had received at a christening ceremony the day before)
eghó k(r)átagh-a mía bubunjé(r)a, dhikj-á mu ítane.
I hold:IPFV-PAST:1SG a box.of.candies mine of.me was
'I had a box of candies; it was mine.'

As stated in 2.2.3.1, opposition of the perfective and imperfective past cannot be demonstrated from Stephany's data up to 2;10, but is found to develop in Marilena's speech between 2;6 and 3;9, so that lexemes attested in both forms gradually become the predominant pattern (Katis, 1984). However, most instances of non-prototypical combinations of aspect and aktionsart occurring before 3;2 are either negated verb forms carrying a special modal meaning (see below) or occur in situations of language game. With some verbs, the meaning

of perfective past forms differs so much from that of imperfective forms that it seems doubtful whether the child recognizes them as belonging to one and the same lexeme (Marilena, 2;6, pjo(s) xtíp-aj-e 'who hit-IPFV-PAST:3SG' (= 'who knocked') vs. xtíp-is-a 'hit-PFV-PAST:1SG' (= 'I got hit')).

Katis (1984) found the imperfective past to be used for expressing coincidence of situations by the second half of the third year (example 102d). In the earliest examples, only one of the coinciding situations is expressed while the other one is merely implied (102a) or provided by the interlocutor (102b). Much as in standard speech, durative situations may be rendered by the imperfective past with a parallel situation only very remotely -- if at all --, implied (102c). Sometimes, the children do not explicitly mark coincidence by adverbials or conjunctions as required (102e). When complete constructions expressing coincidence such as (102d) begin to appear, active present participles denoting coincidence equally come into use (e.g., klégh-ondas 'cry-ing').

(102) (a) Marilena 2;6 (Katis, 1984)
thím-ase pu é-v(r)ex-e?
remember:IPFV-NONPAST:2SG that AUGM-rain:IPFV-PAST:3SG
'Do you remember that it was raining (the last time we
were passing by this street)?'.

(b) Marilena 2;7 (Katis, 1984)
ADU: írth-ate níxta esís.
come:PFV-PAST:2PL night you:PL
'You came during the night.'

MAR: esí kim-úsuna.
you:SG sleep-PASS:IPFV:PAST:2SG
'You were sleeping.'

(c) S 3;7 (Katis, 1984)
é-gh(r)af-e, é-gh(r)af-e, ólo é-gh(r)af-e, é-gh(r)af-e,
égh(r)af-e, égh(r)af-e.
AUGM-write:IPFV-PAST:3SG wrote all wrote...
'He was writing, and writing, and writing all the time,
and writing and writing and writing.'

(d) Marilena 2;9 (Katis, 1984)
se ídh-a ekí pu pern-úsame me ti várka.
you:ACC:SG see:PFV-PAST:1SG there where pass-IPFV:PAST:1PL
with the boat
'I saw you there where we were passing by boat.'

(e) Marilena 2;9 (Katis, 1984)
alá dhjávaz-a edhó xámu, dhjávaz-a.
but read:IPFV-PAST:1SG here down read:IPFV-PAST:1SG
írth-e énas áthropos. (instead of ótan írthe 'when came')
come:PFV-PAST:3SG a man
'But I was reading down here and reading, when a man came.'

Habitual meanings of the imperfective past emerge somewhat later than durative ones and examples are extremely rare (Katis, 1984). They are at first

confined to the context of fairy tales (example 103a) and occur in non-narrative discourse only after 4;0 (103b).

(103) (a) Marilena 2;9 (Katis, 1984)
ítan énas líkos. tá-t(r)oj-e ta pedh-ákj-a.
was a wolf. them-eat:IPFV-PAST:3SG the child-DIM-PL
'There was a wolf. He used to eat little children.'

(b) L 4;9 (Katis, 1984)
(commenting on a photograph taken during summer vacation)
edhó ítan pu pijén-ame emís ke pérn-ame ta psárj-a.
here was that go:IPFV-PAST:1PL we:NOM and take:IPFV-PAST:1PL
the:NEUT:ACC:PL fish-NEUT:ACC:PL
'This is where we used to go and get our fish.'

Katis (1984) explains the development of the habitual meaning of the imperfective past shortly after the durative meaning by the fact that, in the early habitual uses of the imperfective past, the repeated situations involve an extended time interval and are considered "as a continuous whole." For the same reason habitual meanings develop before iterative meanings emphasizing the separate incidents of a situation. Examples such as (104a) are even more rarely attested than habitual meanings, however. Before appropriately combining the temporal adverbials 'every day' and 'every morning' with imperfective past forms, Marilena uses them with "old" perfective forms. Errors such as (104b) continue for a long time.

(104) (a) Marilena 3;9 (Katis, 1984)

ke káthe méra é-fevj-e ke ksana-erx-ótane i arkúdha.

and every day AUGM-leave:IPFV-PAST:3SG and again-come-PASS:PAST:3SG the bear

'And every day the bear went away and came back again.'

(b) Marilena 3;0 (Katis, 1984)

áfis-e (for áfin-e) to kuvadháki káthe proí.

leave:PFV-PAST:3SG (leave:IPFV-PAST:3SG) the little.pail every morning

'She left the little pail every morning.'

Since the perfective simple past typically fulfils a completive, resultative function in early child Greek, it is not surprising that, with the exception of a few examples from Janna at 2;10, the present perfect is absent from Stephany's data. In Katis' (1984) longitudinal data verbs attested in the present or past perfect increase from 3.6% at 2;6 (N = 111 lexemes) to 30.6% at 3;9 (N = 242 lexemes). The "new form" of the perfect is most likely to occur with telic-resultative verbs, which are álso preferably attested in the perfective past, fulfilling an "old" resultative function (example 105). Although the perfective past can mark result in many situations, the present perfect is more appropriate in cases where it is impossible to refer to the cause of a situation. During the second half of the third year, the perfective past tends to be overused in such circumstances. This shows that the children have problems with "the delineation of the functional territory of these two related grammatical

structures" (Katis, 1984). In the fourth and fifth years, the present perfect may also be used to express experience (example 106).

(105) Marilena 3;3 (Katis, 1984)

íne berdhe-mén-a,

be:NONPAST:3PL mix.up-PASS:PAST.PART-NEUT:NOM:PL

éx-i berdhefti.

have-NONPAST:3SG mix.up:PERF.FORMANT

afú esí ta bérdheps-es.

since you:NOM:SG them:NEUT mix.up:PFV-PAST:2SG

'They are mixed up, it has gotten mixed up. Since you mixed them up.'

(106) Marilena 3;5 (Katis, 1984)

(k)sér-is, eghó éxo (k)sana-dhí tétjo.

know-NONPAST:2SG I have again-see:PERF.FORMANT such:NEUT:ACC:SG

'You know something, I have seen such a thing before.'

The past perfect emerges after the present perfect. It first appears at 3;2 in Marilena's speech and with one subject of the cross-sectional study at 2;8. Just as the present perfect, the past perfect is at first used to express result (examples 107).

(107) (a) Marilena 3;9 (Katis, 1984)

ítane di-mén-i. exthés íxane dithí.

were dress-PASS:PAST.PART-MASC:NOM:PL yesterday had
dress:PERF.FORMANT
'They were dressed up. Yesterday they had got dressed up.'

(b) A 3;10 (Katis, 1984)
ki ótan tin é-vghal-a, íxe kaí.
and when her AUGM-take.out:PFV-PAST:1SG had
burn:PERF.FORMANT
'And when I took it out, it had been burned.'

The resultative function of the past perfect becomes especially clear in example (108a) where íxame psarépsi 'we.had fished' is used instead of íxame pjási psári 'we.had caught fish'. There is some evidence in Katis' data that children consider the past perfect more appropriate than the perfective simple past to mark result in remote past (108b). This is also evident from (108c), where the past perfect is used instead of the present perfect to express experience. While the past perfect is found expressing experience by 3;6 (108d), it is only later that both a past reference point as well as a situation located further left on the time scale are expressed (108e). Katis (1984) attributes the fact that the experiential use of the past perfect is least frequent and appears latest of all uses of the perfect to the cognitive difficulty of referring to a situation having indefinitely occurred within a remote past interval without having an obvious result. Children's cognitive problems with more remote situations are also evidenced by their frequent confusion of the deictic temporal adverbs ávrio 'tomorrow' and xthes 'yesterday' (Katis, 1984).

(108) (a) L 4;9 (Katis, 1984)
(pointing to two photographs on one of which her family
is fishing and on the other one holding a fish)
edhó íne pu psarév-ame ki edhó pu íxame psarépsi.
here is that fish:IPFV-PAST:1PL and here that have:PAST:1PL
fish:PERF.FORMANT
'Here is where we were fishing and here is where we had
fished.'

(b) Marilena 3;9 (Katis, 1984)
(referring to an incident of a few days ago)
ADU: se lipí-thik-e?
you:ACC regret-PASS:PFV-PAST:3SG
'Did she feel sorry for you?'
MAR: dhe me íxe lipithí. jatí na me lipith-í?
not me have:PAST:3SG regret:PERF.FORMANT why
MOD.PTL me regret:PASS:PFV-NONPAST:3SG
'She hadn't felt sorry for me, why should she feel sorry
for me?'

(c) Marilena 4;0 (Katis, 1984)
ADU: sú-xe ormísi poté skilí?
you:GEN-have:NONPAST:3SG leap:PERF.FORMANT ever
dog
'Has any dog ever leapt on you?'
MAR: i Lára me (for mu GEN) íxe ormísi pénde forés.

the Lara me:ACC have:PAST:3SG leap:PERF.FORMANT
five times
'Lara had leapt on me five times.'

(d) Marilena 3;6 (Katis, 1984)
ke to íxe sana-fkjási (for ksana-ftjáksi) s-ti zoí mu.
and it:ACC had again-make:PERF.FORMANT in-the life me:GEN
'And he had made it before in my life.'

(e) Marilena 3;9 (Katis, 1984)
dhen íxan ksana-fái tétjo.
not have:PAST:3PL again-eat:PERF.FORMANT
such:NEUT:ACC:SG
próti forá vlép-ane.
first time see:IPFV-PAST:3PL
'They hadn't eaten such (food) before. The were seeing (it)
for the first time.'

Modalized utterances are even more important than non-modalized ones in early child Greek and modality is expressed by a variety of formal means, namely, subjunctive and imperative mood, imperfective non-past ("present") and past indicative, as well as modal verbs. Perfective subjunctive and non-past indicative are by far the most frequently attested categories in Stephany's observational data through 2;10 (see 2.2.3.1, display 20). While, at 1;10, modalized utterances containing a verb form amount to 62% on average (N = 1,777), modalized and non-modalized utterances have reached about equal

frequency by 2;4, with the number of non-modalized expressions further increasing as development proceeds (Stephany, 1985, p.154). The most frequent types of modal meanings in early child Greek are deontic and dynamic. Epistemic meanings emerge later and are much more rarely attested. The predominance of deontic and dynamic modal meanings are to be attributed to children's socially as well as physically dependent status on the one hand and to their cognitive development on the other.

The functionally similar categories of the imperative singular and the second person singular of the subjunctive are formally distinguished already by at 1;10 (on negation see 2.3.2.4.). The most frequently attested imperative forms are kíta 'look', éla 'come', kátse/káthise 'wait, sit down', and síko 'get up', which make up half of all imperative tokens attested in Stephany's data (1985, p.172; 1986, p.382). While the opposition of perfective and imperfective imperative forms is often neutralized in the standard language, this is always the case in early child Greek.[21] When there is an opposition in standard MG, the children most often use the semantically unmarked perfective form (example 109). The imperfective is only correctly used with durative-atelic verbs, mainly kratό 'hold', and in cases where the imperfective aspect, expressing milder requests, is more common in adult speech (e.g., ksípn-a 'wake.up:IPFV-IMP:SG').

(109) Mairi 1;10 (Stephany, 1985, p.174)
k(l)is ta xé(r)ja!
close:PFV:IMP:SG the hands
'Put your hands together!'

In explicit directives, the imperative is used much more frequently than the subjunctive. There is slight evidence, however, that even at 1;10, some of the children have begun to grasp the functional difference between the two moods (Stephany, 1986, p.382). Requests expressed in the subjunctive are interpretable as advice and are therefore considered more polite (Babiniotis and Kontos, 1967, p.181). Thus, in example (110), Spiros uses the subjunctive to address his mother, but the imperative with the investigator. Use of the imperative or the subjunctive in directives also seems to depend on the child's social relations. At 2;4, Janna, who attends kindergarten, shows a more pronounced tendency to use the subjunctive when addressing adults than the other children. At 2;10, Mairi and Janna express directives which do not concern the immediate future by the subjunctive (example 111).

(110) Spiros 1;10 (Stephany, 1985, p.174; 1986, p.382f.)

(a) láli # babás # típa. láli i mamáli # típa.
for na vghál-i ton babá apó tin trípa.
MOD.PTL remove:PFV-NONPAST:3SG the daddy from the hole
na vghál-i i mamá apó tin trípa.
MOD.PTL remove:PFV-NONPAST:3SG the mummy from the hole
'She (= mummy) shall take daddy (= doll) out of the hole.
Mummy shall take (him) out of the hole.'

(b) SPI: lolói! for rolói! 'watch'
ULL: thél-is na t-akús-is?

want-NONPAST:2SG MOD.PTL
it-hear:PFV-NONPAST:2SG
'Do you want to listen to it?'
SPI: 6láto! for ja vghál-to!
MOD.PTL remove:PFV:IMP:SG-it
'Take it off!'

(111) Janna 2;10 (Stephany, 1985, p.175)
ti dheftéra na-(r)th-ís.
the Monday MOD.PTL-come:PFV-NONPAST:2SG
'Come on Monday.'

As stated in 2.2.3.1, future tense and subjunctive mood are closely linked functionally and frequently overlap formally in early child Greek. This is why Stephany (1985, p.155) postulates an as yet undifferentiated subjunctive category, used in a "modal-prospective" or a "temporal-prospective" way (also see Stephany, 1986, p.380). The first of these functions is found in desiderative or directive utterances referring to non-factual situations about to be materialized. Such utterances express the child's wishes or intentions to act (example 112a), obligations of the addressee (112b) or a third person (112c), or serve to ask for permission (112d) or make a promise (see example (117a) below). In such utterances, grammatical subjects are animate and mostly refer to speaker or addressee. Since deontically modalized utterances such as these imply futurity, there is no clear-cut difference between the modal-prospective and the temporal-prospective uses of the subjunctive. Still, modal-prospective usage very largely predominates in the three periods of observation (78% to

98% of subjunctive tokens at 1;10 (N = 614) and 58% to 69% at 2;10 (N = 538)).

(112) (a) Spiros 1;10 (Stephany, 1985, p.159; 1986, p.381)
(watching Ulla taking a book out of her bag)
pío vavási for o spíros tha/na dhiavás-i
the Spiros FUT/MOD.PTL read:PFV-NONPAST:3SG
'Spiros is going/wants to read.'

(b) Mairi 1;10 (Stephany, 1985, p.158)
na kasísis for na kath-ís-is
MOD.PTL sit-PFV-NONPAST:2SG
'You shall sit down.'

(c) Mairi 2;4 (Stephany, 1985, p.159; 1986, p.382)
a m6 pái agalíta for na me pár-i aNgal-ítsa
MOD.PTL me take:PFV-NONPAST:3SG embrace-DIM
'She shall take me in her arms.'

(d) Mairi 1;10 (Stephany, 1985, p.159)
pári ghugunáki? for na pár-i to ghurun-áki?
MOD.PTL take:PFV-NONPAST:3SG the pig-DIM
'May she (= Mairi) take the piggy?'

More strongly temporal functions of subjunctive verb forms occur in statements and questions about imminent situations uncontrolled by an agent

(113a) or about situations further removed from speech time (113b). Grammatical subjects of such sentences are more often inanimate and third person. Katis (1984) cites an example in which Marilena inadequately uses the future particle in order to give "the prospective event an air of certainty" (example 113c).

(113) (a) Spiros 1;10 (Stephany, 1985, p.160)
xalási tóa for tha xalás-i tóra
FUT.PTL break:PFV-NONPAST:3SG now
'It (= tape recorder) is going to break now.'

(b) Maria 2;10 (Stephany, 1985, p.161)
ta (for tha) jín-is ke mamá esí.
FUT.PTL become-NONPAST:2SG also mummy you:NOM:SG
'You'll also become a mummy.'

(c) Marilena 2;7 (Katis, 1984)
(th)a páme tha (for na) to (s)kotós-ume to líko
FUT.PTL go:PFV:NONPAST:1PL FUT.PTL (for MOD.PTL) it
kill:PFV-NONPAST:1PL the wolf
'We will go and kill the wolf.'

Most subjunctive verb forms are perfective and are attested of telic or other dynamic verbs. Although much less frequent overall than the perfective, the imperfective aspect is more often used with atelic dynamic or stative verbs. Also, perfective and imperfective subjunctive are adequately used with telic

and atelic verbs, respectively (114a), but errors occur when the imperfective aspect is used with telic verbs where it is semantically marked (Stephany, 1985, p.166ff.). With telic-punctual verbs like pérno 'take' or dhíno 'give', the imperfective aspect has an iterative meaning, which is adequate in (114b) but inadequate in (114c) where Mairi is trying to get the book of Little Red Riding Hood as a gift. Although the perfective and imperfective subjunctive is rarely contrasted with one and the same lexeme, examples of this are found with Mairi already at 1;10 when she uses the verb akúo 'hear' in both a telic and an atelic sense (115a vs. 115b).

(114) (a) Maria 2;4 (Stephany, 1985, p.167)

a ftátsum6 éna kevatáki? a kimát6.

for na ftáks-ume éna krevat-áki? na kimáte.

MOD.PTL make:PFV-NONPAST:1PL a bed-DIM MOD.PTL sleep-PASS:IPFV:NONPAST:3SG

'Shall we make a little bed? So that it (= doll) can sleep.'

(b) Mairi 2;10 (Stephany, 1985, p.169)

mía mía tha (tis) pérn-ume.

one:FEM one:FEM FUT.PTL (them:FEM) take:IPFV-NONPAST:1PL

'We'll pick them (= picture lotto cards) up one by one.'

(c) Mairi 2;10 (Stephany, 1985, p.169)

aftó na mu to dhín-is?

this MOD.PTL me:GEN it give:IPFV-NONPAST:2SG

for aftó na mu to dhós-is?

this MOD.PTL me:GEN it give:PFV-NONPAST:2SG

or aftó mu to dhín-is?

this me it give:IPFV-NONPAST:2SG

'Will you give this to me?'

(115) Mairi 1;10 (Stephany, 1985, p.170)

(a) (wanting to listen to a tape-recorded song)

laghúsum taghuzáki for n-akús-ume to traghudh-áki

MOD.PTL-hear:PFV-NONPAST:1PL the song-DIM

'Let's listen to the song.'

(b) (wanting to listen to the tape)

n-ak-úme.

MOD.PTL hear:IPFV-NONPAST:1PL

'Let's listen.'

There are first indications of the differentiation of subjunctive mood and future tense already by 1;10. The future particle tha is on the whole correctly used and there are few overextensions of the modal particle na to contexts where tha would be appropriate (example 116). Temporal and modal functions of negated subjunctive verb forms are distinguished under negation (also see 2.3.2.4). Thus, the non-modal negator dhen occurs in a promise (117a) while the modal negator min is used for a directive (117b).

(116) Mairi 2;4 (Stephany, 1985, p.160f.)

MAI: úla, tha (s)pás-i.

Ulla FUT.PTL break:PFV-NONPAST:3SG

'Ulla, it will break.'

MOT: óxi. dhen spáz-i.

no not:NONMOD break:IPFV-NONPAST:3SG

'No. It doesn't break.'

MAI: na (for tha) (s)pás-i íp-a.

MOD.PTL (FUT.PTL) break:PFV-NONPAST:3SG

say:PFV-PAST:1SG

'It shall (for 'will') break, I said.'

(117) (a) Mairi 2;4 (Stephany, 1985, p.156; 1986, p.381)

MOT: na min to spás-is ómos.

MOD.PTL not:MOD it:ACC break:PFV-NONPAST:2SG

however

'But don't break it.'

MAI: ómpáso for dhen tha to spás-o

not:NONMOD FUT.PTL it break:PFV-NONPAST:1SG

'I'm not going to break it.'

(b) Maria 2;4 (Stephany, 1985, p. 158)

i kle for mi kle-s

not:MOD cry:IPFV-NONPAST:2SG

'Don't cry.'

Since the subjunctive is so widely used to convey the deontic modal meanings of wish, intention, obligation, and necessity, -- but not yet permission --,

modal verbs have a less important role to play in child Greek as compared to languages such as English or German. The children use the only two genuine MG modal verbs prépi 'must:3SG' and boró 'can, be able to, may' in the present tense with deontic and dynamic meanings, respectively. Neither is boró used for permission nor do modal verbs at first carry epistemic meanings. Prépi is much less frequently attested than boró and is spontaneously used only by 2;4 to express obligation, the source of which does not reside in the speaker (118a). Since boró only expresses ability, it most often refers to the speaker and is typically accompanied by the non-modal negator dhen. It is at first used without an object clause (Natali, 1;8, obojó for dhen bor-ó 'not:NONMOD can-NONPAST:1SG'(= 'I can't'); Stephany, 1986, p.384) and begins to be constructed with subordinate verbs only by 2;10 (118b). At this point of development, the notion of ability is also conveyed by the stative verb kséro 'know'. The speaker's wishes are very frequently expressed by the volitive verb thélo 'want'. While most often constructed with an object noun or pronoun at 1;10, it also occurs with object clauses. Such constructions become more frequent by 2;4 (example 118c).

(118) (a) Maria 2;4 (Stephany, 1985, p.176)

pépi a pái jajá maia tó

for prép-i na pá-i i jajá tis maría-s s-to jatró

must-NONPAST:3SG MOD.PTL go:PFV-NONPAST:3SG the granny

of.the Maria-GEN:SG to-the doctor

'Maria's (= other child) granny must go to the doctor's.'

(b) Mairi 2;10 (Stephany, 1985, p.135; 1986, p.384)

6m boró na do bjáso for dhem bor-ó na to pjás-o

not can-NONPAST:1SG MOD.PTL it catch:PFV-NONPAST:1SG

'I can't catch it.'

(c) Mairi 2;10 (Stephany, 1985, p.179)

MOT: pes: thía úla, pár-e-to.

say:PFV:IMP aunt Ulla take:PFV-IMP-it

ja na mi se dhír-o.

PREP MOD.PTL not:MOD you:ACC:SG

spank:PFV-NONPAST:1SG

'Say "aunt Ulla, take it." So that I won't spank you.'

MAI: ze dhélo for dhe thél-o

not:NONMOD want:IPFV-NONPAST:1SG

'I don't want to.'

MOT: ti dhe thél-is?

what not want-NONPAST:2SG

MAI: dhe thélo na mu do bár6 for

dhe thélo na mu to pár-i

not I.want MOD.PTL me:GEN it:ACC

take:PFV-NONPAST:3SG

'I don't want her to take it (= picture book) away from me.'

Although deontic modal meanings with the source of modality residing in the speaker are most frequently expressed by the subjunctive or imperative moods,

third person plural non-past indicative ("present" tense) verb forms are occasionally used for conveying indirect directives by stating social norms or habits (Stephany, 1986, p.377). Such deontic statements are located on a continuum of description of people's ordinary behavior (119a) to its adoption as a norm (119b) (Stephany, 1985, p.133; 1986, p.384). There are a few examples in which the children use the non-past indicative with inanimate subjects to express dynamic possibility (119c). When ability applies to animate subjects, it is rendered by the modal verb boró 'can, be able' (Stephany, 1986, p.384). Around 2;8, Katis (1984) found first instances of telic verbs used in the negated imperfective past to express unwillingness or inability (119d and 119e).

(119) (a) Spiros 1;10 (Stephany, 1985, p.134)

ULL: edhó i arkúdha kitázi to pul-áki.

here the bear looks the bird-DIM

'Here the bear is looking at the birdie.'

SPI: azoáki ekí # léne for aidhon-áki ekí to lé-ne

nightingale-DIM there it:ACC call:IPFV-NONPAST:3PL

'They call it a nightingale there.'

(b) Mairi 1;10 (Stephany, 1985, p.134; 1986, p.384)

(when her mother approaches the toy monkey with her foot)

ze (for dhen) váz-un to pódhi

not:NONMODAL put:IPFV-NONPAST:3PL the foot

'One doesn't put one's foot there.'

(c) Natali 1;8 (Stephany, 1986, p.384)

nii # títo? for anij-i túto?

open:IPFV-NONPAST:3SG this

'Does this (= door of toy car) open?'

(d) Marilena 3;0 (Katis, 1984)

dhe stamátaj-e

not:NONMOD stop:IPFV-PAST:3SG

'He wouldn't stop.'

(e) Marilena 2;9 (Katis, 1984)

dhe(n) tó-v(r)isk-e

not:NONMOD it-find:IPFV-PAST:3SG

'He couldn't find it.'

As mentioned above, both the subjunctive mood and modal verbs at first convey deontic or dynamic modal meanings. There are, however, first hints at the emergence of epistemic meanings from early on. Since predictions such as (113a) are not statements of fact, they could "be considered as precursors to epistemically modalized statements representing a kind of 'null-degree' of epistemic modality" (Stephany, 1986, p.381; also see Pea et al., 1982). Another source of the developing notion of epistemic possibility may be seen in pretend play (Stephany, 1986, p.393). First instances of the imperfective past being used with this function are attested in Katis' data of the second half of the third year with the number of examples steadily increasing during the fourth year. While the imperfective past is at first used on its own, it is later

most often constructed with the modal particle na (example 120a) to form a "'modal past', which expresses an action that has not taken and is not taking place" (Mackridge, 1985, p.277). According to Katis (1984), rare usages such as (120b) suggest that in examples such as (120a), consisting of a single clause introduced by na or tha, a superordinate clause inviting the interlocutor to participate in a game or imagine some situation is understood (e.g., thélo/fantásu esí na odhíghajes... 'I.want/imagine:IMP that you would be driving...'). During the fourth year, when counterfactual conditional sentences in which tha is constructed with imperfective past forms appear in Marilena's input, the particle tha gradually replaces na in the child's pretend play (120c). Adult expressions transmitting counterfactuality and implying a relation between two situations at first seem to be used by children for conveying the unreality or mere possibility of a single situation. In counterfactual wishes, which appear at 3;9 in Marilena's speech, the verb is constructed with na (120d).

(120) (a) Marilena 2;9 (Katis, 1984; Stephany, 1986, p.394)

eghó píjen-a, esí na odhíghaj-es.

I:NOM go:IPFV-PAST:1SG you:NOM MOD.PTL

drive:IPFV-PAST:2SG

'I would be going and you would be driving.'

(b) Marilena 3;0 (Katis, 1984)

thes esí tóra na ísuna pulakós ke na psóniz-es?

want:IPFV:NONPAST:2SG you:NOM:SG now MOD.PTL

be:IPFV:PAST:2SG pulakós and MOD.PTL shop:IPFV-PAST:2SG

'Do you want to be a pulakós now and to be shopping?'

(c) Marilena 3;0 (Katis, 1984)

kíta. tha kim-ótane ál-os s-ta pséma-ta.

look:IMP FUT.PTL sleep-PASS:IPFV:PAST:3SG

other.one-MASC:NOM:SG in-the:NEUT:PL lie-NEUT:PL

'Look, someone else would be sleeping in pretend.'

(d) Marilena 4;0 (Katis, 1984)

makári ná-muna ki eghó kókor-as!

if.only MOD.PTL-be:PAST:1SG and I:NOM rooster-MASC:NOM:SG

'If I only were a rooster too!'

Katis (1984) found first instances of counterfactual conditional sentences containing both protasis and apodosis in Marilena's speech at 3;2 (example 121a) and with the 4-year-olds in the cross-sectional data. Utterances merely consisting of the protasis and taking the form of questions expecting the interlocutor to furnish the apodosis are attested earlier (121b). Non-counterfactual conditional relations are found at an even younger age (121c).

(121) (a) Marilena 3;3 (Katis, 1984)

áma kriv-ómuna se mja spiljá, tha me é-vrisk-es?

if hide-PASS:IPFV:PAST:1SG in a cave FUT.PTL me

AUGM-find:IPFV-PAST:2SG

'If I hid in a cave, would you find me?'

(b) Λ 2;8 (Katis, 1984)

CHI: áma tin é-legh-a?

if she:ACC AUGM-say:IPFV-PAST:1SG

'What if I had said it (= the naughty word)?'

ADU: áma dhen tin é-lej-es, ísuna kaló pedhí.

if not:NONMOD she:ACC AUGM-say:IPFV-PAST:2SG

be:PAST:2SG good child

'If you hadn't said it, you would be a good boy.'

(c) Natali 1;8 (Stephany, 1985, p.163)

óvátshi nítsho # malóni babá. (= kreváti aníkso # malóni babá)

for áma aníks-o to kreváti tha malón-i o babás

if open:PFV-NONPAST:1SG the bed FUT.PTL

scold:IPFV-NONPAST:3SG the daddy

'If I open the bed (= microphone case), Daddy will scold me.'

There is an instance of epistemic modal meaning expressed by the superordinate verb nomízo 'think' in Maria's speech at 2;10 (example 122a). Epistemic use of modal verbs with the main verb in the imperfective past preceded by na is first attested in Marilena's speech at 3;9 (122b).

(122) (a) Maria 2;10 (Stephany, 1985, p.151)

i(r)th-e i mamá mu. íne i jajá mu.

come:PFV-PAST:3SG the mummy of.me is the granny of.me

nómizó (for nómiz-a) óti ítan i mamá mu.

think:IPFV-PAST:1SG that was the mummy of.me

'My mummy came. It's my granny. I thought that it was my mummy.'

(b) Marilena 3;9 (Katis, 1984)
bor-í ke na fov-ótane.
may:IPFV-NONPAST:3SG also MOD.PTL
fear-PASS:IPFV:PAST:3SG
'It is possible that she was frightened.'

The analysis of the development of predication carried out above leads to the following overall picture of the development of forms and functions of tense, aspect, and modality in Greek language acquisition. Correlations between grammatical aspect and lexical aktionsart on the one hand and aspect and tense on the other are much stronger in early child Greek, -- at least up to approximately 2;6 --, than in spoken Greek. Children prefer the most prototypical combinations of these categories represented in Table (12).

Insert TABLE 12

While imperfective past and imperfective subjunctive occur much less frequently overall than their perfective correlates, the former are relatively more often attested with atelic-durative than with telic-punctual verbs. The marked member of the perfective/imperfective opposition emerges earlier and is used more frequently in the subjunctive than in the past. This can be

explained by the high communicative relevance of the Greek subjunctive on the one hand and by the doubly marked character of the imperfective past, marked for both aspect and tense (Stephany, 1985, p.172). In spite of the fact that telic-punctual verbs are more frequently used in the perfective subjunctive than in the present tense while the reverse is true of atelic-durative verbs, aktionsart does not absolutely determine aspect even in early child Greek (Stephany, 1985, p.116ff.). The only aktionsart which is restricted to the imperfective aspect in child as well as standard Greek is that of "totally stative verbs," such as kséro 'know' and the auxiliaries íme 'be' and éxo 'have' (Sasse, 1991).

2.3.2.4. Negation

Between 1;10 and 2;10, the number of negated utterances increases to 10% on average of the three children observed (N = 2497). While Spiros and Janna exclusively use the negative particle óxi 'no, not' productively at 1;10, Mairi employs the non-modal verb negator dhen much more often than the modal negator min or óxi (dhen 78% , óxi 17%, min 5%; N = 152 negated tokens).

In the standard language, óxi serves as a substitute for clauses (anaphoric negator) as well as to negate constituents of verbless utterances (Mackridge, 1985, p.244). Already by 1;10, the children adequately use this negating particle for expressing refusal to comply with requests in response to modalized questions or imperatives (123a and b) or for answering non-modalized yes/no questions (123c). Furthermore, óxi occurs in verbless utterances to negate words or phrases allowing "reference to something other than what is specifically referred to without specifying what the other is"

(Morris, 1938, p.28) (123d). There are also examples where the negated word is contrasted to a specified other (123e). Such utterances function as prohibitions or rejections of suggestions and as denials of assertions or presuppositions.

(123) (a) Spiros 1;10

MOT: na to klís-ume?
MOD.PTL it:ACC close:PFV-NONPAST:1PL
'Shall we close it?'

SPI: óxi
no

(b) Janna 1;10

ULL: fér-e mu ta zóa!
bring-IMP me:GEN the animals

JAN: óxi
no

(c) Janna 1;10

ULL: éxi oréo forematáki?
has nice dress

JAN: óxi
no

(d) Mairi 1;10

óxi o píthikos

not the monkey

(e) Mairi 1;10

ULL: ke to skiláki pos káni?
and the doggie how does
'And how does the doggie make?'

MAI: ín(e) ajeládha, óxi skiláki.
is cow not doggie
'It's a cow, not a doggie.'

While, at 1;10, Janna restricts the use of óxi to verbless utterances, both Spiros and Mairi overextend it to sentences comprising a verb. Spiros' example (124) is a mixture of negating a word in a verbless utterance (óxi tóra 'not now') and sentence negation (NEG tha xalási tora). The temporal adverbial is separated from the verbal part of the sentence by an intonation drop with the scope of negation thus being restricted to the adverbial.

(124) Spiros 1;10

MOT: étsi to xal-ánc, spíro.
this.way it:ACC break:IPFV-NONPAST:3PL Spiros:VOC
'It will break like this, Spiros.'

SPI: óji tóa xalási for óxi tóra tha xalás-i
not now FUT.PTL break:PFV-NONPAST:3SG
instead of dhen tha xalási tóra
not FUT.PTL break:PFV-NONPAST:3SG now
'It's not going to break now.'

There is a similar example (125a) from Mairi's data where she rejects her interlocutor's proposal by starting her response as a verbless utterance: óxi aftó 'not this.one' instead of óxi ajeládha 'not cow'. The predicative noun is added after a pause without the integration of negation into the predicative expression. Examples (125b) and (125c) are the only ones to be found in Mairi's speech at 1;10 in which sentence negation is incorrectly expressed by constituent negation. In expressions such as (125d) óxi functions as a pivot for negating single words.

(125) Mairi 1;10

(a) ULL: ajeládha íne
cow is
MAI: óxi a(f)tó # ajeládha
not this.one cow
for aftó dhen íne ajeládha
this.one not is cow
'This is not a cow.'

(b) óxi (for dhen) aghapá-i ti mamá
not love:IPFV-NONPAST:3SG the:FEM:ACC:SG mummy
'She (= Mairi) does not love Mummy.'

(c) óxi íne instead of óxi or dhen íne
not is

(d) MOT: xorís to pirun-áki
without the fork-DIM
MAI: óxi pirunáki for óxi me to pirunáki
not with the fork-DIM

In (126), an imitated negated sentence is further specified by addition of a verbless utterance with constituent negation. This way more mature dhen pái étsi 'not goes this.way'(= 'it doesn't fit this way') is broken up into two simpler units.

(126) Mairi 1;10
MOT: dhen pái
not goes
MAI: dhen pái. óxi étsi.
not goes not this.way
'It doesn't fit. Not this way.'

Although, at 1;10, Mairi uses either the verb negator dhen or the anaphoric óxi to answer yes/no questions negatively, she prefers óxi in response to long questions stating complex situations (127a). When constituents other than the verb are stressed she answers by óxi (127b) and uses dhen with stressed predicates (127c).

(127) Mairi 1;10
(a) MOT: na su dhós-i i mamá s-to piatáki na fa-s me ti maría?
MOD.PTL you:GEN give:PFV-NONPAST:3SG the mummy on-the

plate MOD.PTL eat:PFV-NONPAST:2SG with the Maria

'Shall Mummy give you something on the plate so that you can eat with Maria?'

MAI: óxi

no

(b) MOT: aftó thél-i?

this want-NONPAST:3SG

'Does she (= Mairi) want this?'

MAI: óxi

no

(c) ULL: íne kakós?

he.is naughty

MAI: dhen íne

not he.is

As demonstrated by these examples, Mairi distinguishes between the negators dhen and óxi already at 1;10. The fact that she never misuses dhen with non-verbal constituents is further evidence for this distinction. The particle dhen occurs with auxiliaries and a great variety of full verbs. It is always correctly placed in front of the verb or its clitics (128a). Except for six examples beginning with a verb argument, an adjunct, or a question word, the negator is sentence initial and immediately followed by the verb (106 tokens). Although most of these sentences are two-word utterances, examples such as (128b) show that Mairi is able to integrate the negator into syntactic constructions.

(128) Mairi 1;10

(a) ULL: vlép-is to mat-áki?

see:IPFV-NONPAST:2SG the eye-DIM

'Do you see the eye?'

MAI: (dh)en (t)o vlép-o

not it:ACC see:IPFV-NONPAST:1SG

'I don't see it.'

(b) podhar-áki-a # dhen éxi

leg-DIM:NEUT-ACC:PL not has

'It (= finger doll) doesn't have legs.'

Nearly all verb forms negated by dhen are non-past or past indicative. Choice of the negator dhen rather than min to negate imperfective verb forms carrying non-past endings is decisive for the non-modal vs. deontic modal meaning of such expressions (129a vs. 129b). While Mairi uses dhen with five different person-number forms at 1;10, min only occurs with two second singular verb forms, in a prohibition (129b) and an advice (129c). She very often omits min in wishes in which it is semantically required (129d).

(129) Mairi 1;10

(a) (dhe)n to piráz-i i méri

not:NONMOD it:ACC bother:IPFV-NONPAST:3SG the Mairi

'Mary does not bother it.'

(b) (m)i(n) to piráz-is. dhik-ó mu íne.
not:MOD it:ACC bother:IPFV-NONPAST:2SG own-NEUT:NOM:SG
me:GEN is
'You shall not bother it. It's mine.'

(c) (m)i fov-áse!
not fear:IPFV-NONPAST:2SG
'Don't be afraid!'

(d) na (min) kriós-i to moró mu
MOD.PTL (not:MOD) get.cold:PFV-NONPAST:3SG the baby
me:GEN
'My baby shall not catch a cold.'

Example (130a), in which Mairi first answers by the anaphoric negator óxi and afterwards expands her answer by a predicative expression negated by dhen, demonstrates that, by 2;4, she clearly distinguishes between these two negators. Although Mairi now also uses min with both second and third singular forms of a variety of verbs to express deontic modality, this negator remains rather infrequent and is also sometimes omitted where semantically required. Thus, the syntactically independent purpose clause (130b) is explicitly negated by min whereas the particle is omitted in a grammatically dependent clause (130c).

(130) Mairi 2;4

(a) MAI: aftó váz-o.

this.one put:IPFV-NONPAST:1SG
'I'll put this one.'

ULI.: to trighono?
the triangle?

MAI: óxi. (dhe)n to váz-une.
no not it put:IPFV-NONPAST:3PL
'No. It is'nt put (there).'

(b) na to vál-ume edhó. (na) mi krión-i.
MOD.PTL it put:PFV-NONPAST:1PL here (MOD.PTL) not
be.cold:IPFV-NONPAST:3SG
'Let's put it here. So that it will not be cold.'

(c) as to vál-o na (min) to vri i gháta.
MOD.PTL it put:PFV-NONPAST:1SG MOD.PTL (not) it
find:PFV:NONPAST:3SG the:NOM cat
'Let me put it so that the cat will (not) find it.'

Except for a few omissions of negators Janna's and Maria's negated utterances at 2;4 do not contain errors, but they are not very elaborate. Thus, óxi is only used in one-word responses to yes/no questions and either expresses agreement or refusal to comply with a request. In the meantime, the verb negator dhen has become much more frequent than óxi with these girls as well. While negated sentences, comprising a variety of verbs, are nearly all verb-initial in Janna's speech, with dhen being correctly placed in front of the verb or a preceding clitic, in Maria's data, there are a few examples beginning with

the subject, an adverb or a subordinated clause. Although there is only one deontically modalized utterance negated by min in Janna's data at 2;4 and none in Maria's, dhen is correctly restricted to indicative sentences. It is only by 2;10 that Janna demonstrates the anaphoric character of óxi and gives explicit evidence of distinguishing it from the sentence negator dhen (example 131). In the meantime, Janna and Maria have started using óxi for non-verbal constituent negation. The three children continue to use predicative expressions negated by dhen much more frequently than utterances with óxi. The number of examples in which dhen is truly integrated into the structure of the sentence has increased (132) and the negator is almost not omitted any longer where semantically required.

(131) Janna 2;10

JAN: ídh-es kanéna pedh-áki, búbi?
see:PFV-PAST:2SG no:NEUT:ACC:SG
baby-DIM:NEUT:ACC:SG Bubis:VOC
dhen ídh-a kathólu, lé-i.
not see:PFV-PAST:1SG not.at.all say:IPFV-NONPAST:3SG
'Didn't you see any little child, Bubis? I didn't see any
at all, he says.'

ULL: ke metá, ti léi?
and later what says

JAN: óxi.
no

(132) Maria 2;10

ULL: páli líkos ise?
again wolf are:2SG

MAR: eghó dhen íme pja o líkos tóra.
I not am any.more the wolf now
'I'm not the wolf any more now.'

Example (133) seems to demonstrate that, by 2;10, Janna is aware of the difference between non-modal dhen, used to express a general observation concerning people's behavior, and min occurring in deontic modal expressions. Maria employs the modal negator min to give advice or inquire about the speaker's obligation (134). Mairi uses it anaphorically in one-word utterances, usually prohibiting an imminent action of a peer addressee (min 'not' (= 'don't!')). With adults, she prefers more polite negated subjunctive verb forms (example 135).

(133) Janna 2;10 (commenting on her hands)

dhen ksér-o ti na kán-o.
not:NONMOD know:IPFV-NONPAST:1SG what MOD.PTL
do-NONPAST:1SG
jatí dhe(n) tró-ne ta xérja.
because not:NONMOD eat:IPFV-NONPAST:3PL the hands
jatí na mi(n) tró-ne ta xérja.
because MOD.PTL not:MOD eat:IPFV-NONPAST:3PL the hands
'I don't know what to do. Since biting one's hands is not done.
Since one should not bite one's hands.'

(134) Maria 2;10

na mi su (t)o lerós-o?

MOD.PTL not:MOD you:GEN it:ACC dirty:PFV-NONPAST:1SG

'Shall I not dirty it?'

(135) Mairi 2;10

na min to pár-is (es)i aftó.

MOD.PTL not:MOD it:ACC take:PFV-NONPAST:2SG you this.one

'You shouldn't take this one.'

At 2;10, kathólu 'not at all' is used by the three girls as a strong negator (example 131 above and 136). The negative pronoun típota 'nothing' emerges at 2;4, but is used productively only by Mairi at 2;10 (examples 137).

(136) Maria 2;10

en do aghapáo eghó kathólu for dhen ton aghapá-o eghó kathólu

not him love:IPFV-NONPAST:1SG I at.all

'I don't like him at all.'

(137) Mairi 2;10

(a) MOT: ti éxis?

what you.have?

MAI: típota.

nothing

(b) dhen éxi típota

not has anything

'There's nothing (there).'

In the three periods of observation, the main functions of negation in the children's observational data are the following: Utterances consisting of or containing the anaphoric negator óxi serve as responses to yes/no questions, refusals to comply with a request for action, rejections of suggestions, denials of assertions or presuppositions, or agreement with negative assertions (at 2;4) and occur in spontaneously uttered prohibitions. - Spontaneous utterances negated by dhen comment on states of affairs (e.g., dhen akúi 'not hears' (= 'it doesn't listen')), explain states of affairs by negating their opposite (e.g., íne kaló pedhí. dhen íne kakópedho 'is good child not is bad.child' (= 'It's a good child. It's not a naughty child.')), pronounce indirect prohibitions by stating what is not done (e.g., dhen vázun to pódhi 'not they.put the foot' (= 'one doesn't put the foot (there)')), pronounce strong wishes by stating a future fact (e.g., dhen tha fíjis! 'not FUT.PTL you.leave' (= 'you will not leave')), make promises, ask yes/no or wh-questions, or expand a preceding anaphoric negation. Responses containing dhen deny assertions of the interlocutor, agree with interlocutor's negated states of affairs, answer interlocutor's or own negated yes/no questions to express agreement and non-negated ones to express dissent, negate presuppositions of wh-questions (e.g., pu íne ta xérja tis? 'where are the hands of.her?' - dhen éxi. 'not has' (= 'she does'nt have any')), or justify non-compliance with a request or suggestion (e.g., dhen thélo 'not I.want'(= 'I don't want to')). - Finally, min is used to give advice,

pronounce prohibitions, express wishes, or inquire about obligations (the latter at 2;10).

2.3.2.5. Interrogative Sentences

Already by 1;10, the children use yes/no questions as well as interrogative sentences introduced by an interrogative pronoun or adverb. Although "the word order in yes/no interrogative sentences is normally no different" from that in affirmative ones (Mackridge, 1985, p.235) the order S - V is marked (Theophanopoulou-Kontou, p.c.). From the beginning, the children prefer unmarked, verb-initial interrogatives. This tendency becomes even more pronounced when yes/no questions containing a verb and an argument become more frequent in the course of development. Since yes/no questions containing a modal or full verb are frequently used for inquiring about the addressee's wishes, intentions, or present and past actions, second person verb forms are more frequent here than in statements.

While the inanimate interrogative pronoun ti 'what' is productively used by both Mairi and Janna by 1;10, the corresponding animate pronoun pjos 'who' only occurs during a picture lotto game at 2;10. Of the interrogative adverbs, only locative pu 'where' is very frequently used by all children at 1;10, whereas temporal póte 'when' is found only once in Janna's data at 2;4. While pún-dos (from pu-in-tos 'where is he') is rather frequently used by all children at 1;10, it has become rare by 2;4. The interrogative manner adverb pos 'how' first appears in two children's data at 2;4 and gains some frequency only by 2;10. In contrast to this, causal jatí 'why' is already in use by 1;10 and becomes rather frequent in Janna's and Mairi's speech at 2;10.

Although the three neutral orders S-V-O, V-S-O, and V-O-S are allowed in questions introduced by interrogative adverbs, "nevertheless, the verb more usually comes first" (Mackridge, 1985, p.236). However, in questions containing an interrogative pronoun, "the verb must stand immediately after the ... pronoun" (p.237). Verb-first order is observed in all interrogative sentences containing an interrogative adverb or pronoun and a verb in both Mairi's and Janna's data at 1;10. This is trivially so in nearly all of Janna's questions since these merely consist of the interrogative particle and a verb form. More interestingly, Mairi observes the same order also in her sixty question tokens containing a verb accompanied by an argument (138). Spiros' apparent violation of WH-V order in (139) can be explained by the fact that this three-word utterance interrupted by pauses does not yet represent a genuine syntactic construction.

(138) Mairi 1;10

(a) pu páne ta pedh-ákj-a?
where go the children-DIM-PL
'Where do the babies fit?'

(b) ti káni i thía?
what does the aunt
'What's Aunt doing?'

(139) Spiros 1;10

jji# kopéla # fifi? for jatí i kopéla tha fij-i?

why the girl FUT.PTL leave:PFV-NONPAST:3SG

'Why is the girl going to leave?'

Although the three children continue to observe WH-V order through 2;10, questions containing one of the question words ti 'what', pu 'where', pios 'who', or pos 'how' -- but not jatí 'why' --, often have a topicalized non-clitic argument in sentence-initial position (examples 140a, 140b, and 52a, repeated as 140c for convenience).

(140) Janna 2;4

(a) aftó pu tha bi?

this where FUT.PTL go:PFV:NONPAST:3SG

'Where's this going to fit?'

(b) Janna 2;10

to pedh-áki tis pu íne?

the child-DIM she:GEN where is

'Where's her baby?'

(c) Janna 2;10

jatí # o kinighós // aftós o kinighós # pu íne s-tin ikóna #

why the hunter // this the hunter who is on-the picture

jatí éxi to óplo tu aftós o kinighós?

why has the weapon of.him this the hunter

'Why does this hunter who is on the picture have his weapon with him?'

2.3.3. Coordination and Subordination

The two connectors most frequently used by the three children studied in each of the three periods of observation are the coordinating conjunction ke 'and' and the subordinating modal particle na 'to, that'. The particle na serves to introduce the most frequent types of subordinate clauses, namely purpose and complement clauses. Other more rarely used subordinating connectors, such as jatí 'why', ótan 'when', or an 'if', introduce causal, temporal, and conditional clauses, respectively. The particles jatí 'why', ti 'what', or pu 'where' occur earlier in interrogative sentences containing simple predications than with a clause-connecting function (see Bloom et al., 1988, p.92, for English). Also the modal particle na is much more often used in simple clauses than in complex sentences.

Complex sentences, i.e. syntactic constructions uniting two or more predications, represent a considerable grammatical achievement. They seem to develop from two sources, one of which are asyndetically combined clauses united by a single intonational curve (example 141). (Correct versions of (141) would be either a co-ordinate construction, as to káto, tha pés-i aljós, or a subordinate one, as to káto na min pési 'leave it down MOD.PTL not:MOD fall' (= 'leave it down so that it won't fall'). The same strategy of relying on prosodic means for building more complex linguistic expressions was observed above in the transition from the one-word to the two-word stage. The other source of complex sentences are single clauses introduced by a connector and relating to the extralinguistic or linguistic context. These are dealt with below.

(141) Mairi 2;4

as to káto tha pés-i aljós

leave:IMP it:ACC down FUT.PTL fall:PFV-NONPAST:3SG

otherwise

'Leave it down; it will fall otherwise.'

2.3.3.1. Coordination

The conjunction ke 'and, also' is "by far the most frequently used" Greek coordinating conjunction (Mackridge, 1985, p.240) and the only one to occur in the children's speech through 2;10. It is productively used by Mairi at 1;10, by Maria at 2;4, and by Janna at 2;10. Ke may coordinate single words or whole clauses, but is also very frequently used as a "focusing particle, with the sense of 'also' or 'even'" (p.240). The latter function is the first to appear in child Greek. Since such expressions relate to the linguistic or extralinguistic context, they are of limited syntactic complexity (examples 142).

(142) Mairi 1;10

(a) (after Mairi's mother has served the interviewer some cake)

dhós-e mu, thél-o k-eghó.

give:PFV-IMP me:GEN want-NONPAST:1SG also-I

'Give me, I also want some.'

(b) (wanting another toy)

ke álo!

also another

'Another one!'

While examples such as (142) are frequent in Mairi's speech at 1;10, she much more rarely uses ke as a genuine textual connector (Hartmann, 1975) to relate utterances. Coordination of phrases predominates in such situations (examples 143a and b), but there are also a few examples in which the conjunction introduces a clause (143c).

(143) Mairi 1;10

(a) ULL: ne. aftó.

yes this.one.

MAI: ke aftó?

also this.one?

(b) na to vál-o. aftó. ke aftó.

MOD.PTL it:ACC put:PFV-NONPAST:1SG this.one also this.one

'Let me put it (there). This one. And this one.'

(c) ULL: aftó pái edhó.

this.one (= puzzle element) goes here

MAI: ke ti íne aftó?

'And what is that?'

As demonstrated by these examples, at 1;10 Mairi only furnishes the second constituent of coordinating constructions. Most often the interlocutor's preceding utterance functions as the first part (143a and c); only rarely a

preceding utterance of the child's fulfils this function (143b). The very few examples in which Mairi expresses both constituents herself constitute asyndetically coordinated phrases or clauses (examples 144). It therefore seems fair to say that, at 1;10, Mairi does not yet use ke as a syntactic conjunction but only as a textual connector. In his two trials of imitating coordinated nouns phrases, also Spiros combines the nouns asyndetically (145).

(144) Mairi 1;10

(a) (requesting objects she usually takes to bed)
pipiláki sfugarákja mu for
to pipiláki ke ta sfugarákja mu
the comforter and the sponges me:GEN
'my comforter and sponges'

(b) (to) é-krips-a dhen éx-o.
(it) AUGM-hide:PFV-PAST:1SG not have-NONPAST:1SG
'I have hidden (it) (and) don't have (any).'

(145) Spiros 1;10

ULL: dhen tha péksun k-i úla k-i manúla?
not FUT.PTL play:PFV-NONPAST:3PL and-the Ulla and-the Mummy
'Aren't Ulla and Mommy also going to play?'

SPI: úla # manúla. for i úla k-i manúla

MOT: úla k-i manúla. (expanding for Ulla)

SPI: manúla úla.

It is only by 2;4 or 2;10 that Mairi and Janna coordinate phrases or clauses by syntactic means (examples 146). The same relative chronology of contextual or discourse use of ke preceding its syntactic use can also be observed in Maria's data, with contextual use being characteristic of 2;4 and syntactic use first appearing at 2;10. Through 2;10, the children use ke contextually far more frequently than syntactically, however.

(146) (a) Mairi 2;10

MOT: ti íne?
what are (these)?

MAI: kutálja ke pirúni ke maxéri ke tétj-o.
spoons and fork and knife and such-NEUT:NOM:SG
'Spoons and fork and knife and such a thing.'

(b) Mairi 2;4
éxi pjási éna (me) to xer-áki ke vlépi ta pul-ákj-a.
has caught one (with) the hand-DIM and sees the bird-DIM-PL
'He has caught one with his hand and is looking at the birdies.'

According to Mackridge (1985, p.241), "spoken Greek uses parataxis (as opposed to subordination of clauses) far more than certain Western European languages." Thus, in the children's language as well, clause connecting ke not

only has additive (example 147a) or adversative (147b) functions, but also expresses temporal sequence (example 146b above).

(147) (a) Janna 2;10

i mamá íne edhó tóra ke forái koljé.

the mummy is here now and wears necklace

'Here is mummy now wearing a necklace.'

(b) Janna 2;4

aftó íne mikró ke aftó íne meghálo.

this.one is small and this.one is large

2.3.3.2. Subordination

With the exception of Mairi, not many complex predications containing a subordinated clause are attested in the children's data at 1;10. They only become more frequent by 2;4. Precursors to subordinate cosntructions are two predications united by a single intonation contour rising at the end of the first clause and dropping at the end of the second (see examples 121c and 141 above).

As mentioned above, the most frequently attested types of subordinate clauses occurring in the children's data are purpose and object clauses. In both of these, the dependent verb is usually introduced by the modal particle na, which is not a conjunction but part of the verb form. Thus, non-clitic arguments of the verb can only precede or follow a verbal expression introduced by na (example 148).

(148) Maria 2;10

kátse eghó na to jirís-o.

sit:IMP I MOD.PTL it:ACC turn:PFV-NONPAST:1SG

'Wait so that I can turn it over.'

When na is missing, as is quite frequently the case in the children's speech at 1;10 (see 2.2.3.1), matrix and subordinate predications are simply juxtaposed (examples 149 and 150). In spite of this, matrix and subordinate verb can usually be told apart since the matrix verb is in either the non-past imperfective indicative or the perfective imperative, while the subordinate verb is usually in the perfective non-past.

(149) Mairi 1;10

(a) éla (na) kathís-is.

come:IMP (MOD.PTL) sit:PFV-NONPAST:2SG

'Come and sit down.'

(b) síko (na) se vál-o kalá.

get.up:IMP (MOD.PTL) you:ACC put:PFV-NONPAST:1SG well

'Get up so that I can put you in place well.'

(150) Spiros 1;10

thél-i (na to) klís-ome.

want:IPFV-NONPAST:3SG (MOD.PTL it)

close:PFV-NONPAST:1PL

'He (= Spiros) wants that we close it.'

Object clauses commonly either depend on the verb thélo 'want' or on the defective modal verb prépi 'must' and much more rarely on the modal verb boró 'can, be able' (see examples 118 above). While the motion verb páo 'go' sometimes functions as an aspectual verb indicating imminent actions (151a), it is also used as a true main verb dominating purpose clauses (151b). Purpose clauses frequently occur in directive speech acts, such as (148) or (151b). When used in assertions, they sometimes serve to justify the speaker's actions (151c).

(151) (a) Mairi 2;10

píj-e na fá-i ti jaja.

go:PFV-PAST:3SG MOD.PTL eat:PFV-NONPAST:3SG the:ACC granny

'It went/was about to eat Granny.'

(b) Janna 2;4

pá-me na dhúme ta ̀morá.

go:PFV-NONPAST:1PL MOD.PTL see:PFV:NONPAST:1PL the babies

'Let's go and see the babies.'

(c) Janna 2;4

tha to vál-o mésa na to mazéps-o.

FUT.PTL it:ACC put:PFV-NONPAST:1SG inside MOD.PTL it:ACC

gather:PFV-NONPAST:1SG

'I'll put it inside in order to store it.'

When Mairi ventures to construct a complex sentence containing both a purpose and a complement clause at 2;4 (example 152), she merely succeeds in expressing the outer ends of the construction as it were, i.e., the matrix and the most deeply embedded complement clause.

(152) Mairi 2;4

éla mésa ti éxo eghó for éla mésa na dhis ti éxo eghó

come:IMP inside MOD.PTL see:PFV:NONPAST:2SG what have I

'Come inside and look what I've got.'

There are not many examples in which subordinating conjunctions introduce indicative clauses. In (153a), Mairi uses the conjunction óti 'that' in an indirect-speech clause functioning as an object of the verb. In Janna's data at 2;10, an indirect question introduced by pos 'how, that' develops in the course of the interaction between child and adult interlocutor (153b). Indirect questions are introduced by ti 'what' in Janna's data at 2;4 and 2;10 (example 153c).

(153) (a) Mairi 2;10

eghó íp-a óti íne dhik-ó mu.

I say:PFV-PAST:1SG that is own-NEUT:NOM:SG me:GEN

'I said that it's mine.'

(b) Janna 2;10

ULL: pos ton lé-ne?
what him call:IPFV-NONPAST:3PL
'What's his name?'

JAN: dhen ksér-o.
not know:IPFV-NONPAST:1SG

ULL: dhen ksér-is?
not know:IPFV-NONPAST:2SG?

JAN: óxi. dhen kséro. dhen kséro pos ton léne.
no not I.know not I.know what him they.call
'No. I don't know. I don't know his name.'

(c) Janna 2;4

sa zúme ti éxis. for tha dhúme ti éx-is
FUT.PTL see:PFV:NONPAST:1PL what have-NONPAST:2SG
'We'll see what you've got.'

Causal, temporal, and conditional clauses are attested much more rarely than purpose clauses and are often incomplete (Stephany, 1985, p.163). Complete causal sentences such as (154a) are an exception. The children more often rely on the interlocutor's preceding utterance for the matrix clause only furnishing the causal clause themselves (example 154b).

(154) (a) Mairi 1;10

(na) to vghál-ume jatí o íljo(s) ké-i.
(MOD.PTL) it:ACC take.off:PFV-NONPAST:1PL because the sun

burn:IPFV-NONPAST:3SG
'Let's take it off because the sun is burning.'

(b) Mairi 2;4

MOT: thél-o na mil-ás kathará.
want-NONPAST:1SG MOD.PTL speak:IPFV-NONPAST:2SG clearly
jatí mil-ás étsi?
why speak:IPFV-NONPAST:2SG this.way
'I want you to speak clearly. Why do you speak like this?'

MAI: jatí dhen thélo.
because not I.want

The few examples of temporal and conditional clauses are introduced by the conjunctions ótan 'when' and an 'if', respectively, while áma may introduce clauses of both types in colloquial Greek (examples 155). (On conditional clauses also see 2.3.2.3.)

(155) (a) Janna 2;10

ke ótan tha teliós-i tha-rth-is s-to spíti.
and when FUT.PTL finish:PFV-NONPAST:3SG
FUT.PTL-come:PFV-NONPAST:2SG to-the house
'And when she'll finish, you'll come to our house.'

(b) Mairi 2;4

áma meghalós-o eghó (tha) pár-o k-eména (for k-eghó).

when grow.up:PFV-NONPAST:1SG I (FUT.PTL)
take:PFV-NONPAST:1SG also-I:OBL (for I:NOM)
'When I'll grow up, I'll buy one, too.'

(c) Mairi 2;4
tha (to) xal-ás-ume an tha kán-ume étsi.
FUT.PTL (it) destroy-PFV-NONPAST:1PL if FUT.PTL
make-NONPAST:1PL this.way
'We'll destroy it if we do it this way.'

(d) Mairi 2;4
tha su xal-ás-i áma mu (to) pár-is.
FUT.PTL you:GEN break-PFV-NONPAST:3SG if me:GEN (it)
take:PFV-NONPAST:2SG
'It will break if you take it away from me.'

3. CONCLUSIONS

Answers to the question of how the findings about the acquisition of Modern Greek may contribute to some of the larger questions of language acquisition will depend on theoretical positions. If "language is behavior" (Pawley, 1994), language acquisition consists in learning how to understand and speak, or, in Pawley's terms, to "say things that are idiomatic as well as intelligible to others in the speech community". The social and interactional character of language acquisition has also been stressed by Jakobson who notes "dass eigentlich dasjenige, was man erlernt, eine Zwiesprache ist, so dass zur Sprache und

Rede des Kindes zwei Gesprächspartner notwendig sind, einerseits der minderjährige Neuling, andererseits ein älterer, erfahrener Gesellschafter, des Kindes Mutter im besonderen" (1977, p.9). The study of language acquisition can therefore not be reduced to the development of a grammatical system. Unless acquisition of grammar is considered as a prerequisite for discourse, the immature speaker may develop grammar by using the language he is learning as suggested by the subtitle "Communicating to learn in a second language" of Bremer et al. (1988).

If the study of child speech is to contribute to our understanding of the process of language acquisition, the question of psychological reality is not as easily disregarded as in the description of mature languages. Although psycholinguists cannot but adopt one or the other of current linguistic approaches to the description of verbal behavior, theories most suitable for the descriptive task of the developmental psycholinguist should neither make a sharp division between competence and performance nor between synchrony and diachrony. Rather than adhering to "structuralist idealization", such a "dynamic" linguistic paradigm (Croft, 1990, p.258f.) will pay particular attention to linguistic inhomogeneity and variation -- cross-linguistic, sociolinguistic, developmental, as well as historical --, and to the emergence of grammatical systematicity in discourse (Hopper, 1987). For want of a more suitable linguistic framework, the above description of Greek child language has been cast into symbolic representation and rules. The question to what degree such a type of description can contribute to our understanding of what is really going on during the process of language acquisition cannot be answered at the present state of our knowledge.

Ervin's (1964) model of the development of English inflectional morphology comprising the four stages of "(1) no marking, (2) appropriate marking in

limited cases, (3) overgeneralization of marking ..., (4) full adult system" (Slobin, 1973, p.205) has recently received renewed attention due to its network simulation by Rumelhart & McClelland (1986). As argued by Stephany (1985; 1989), this model seems less appropriate for the development of a highly inflecting and fusional language such as MG as compared to the acquisition of a language tending towards the isolating type. Although the earliest Greek data at hand are from the second half of the second year, it is most unlikely that the first stage of morphological development of this language in which grammatical word forms do not consist of roots but obligatorily comprise syllabic and thus perceptually salient inflectional endings should lack inflectional markers (see Operating Principle Attention to Sounds, Slobin, 1985, p.1165). Use of bare roots or stems would presuppose an analysis of word forms which could only follow but not precede rote learning (see Operating Principle Storage of Units, Slobin, 1985, p.1167). If a truly preinflectional stage (stage 1) should be found in the first half of the second year of the acquisition of MG it will most probably consist in the use of most if not all lexemes in one grammatical form each. Development will consist in different grammatical forms of one and the same lexeme becoming part of the child's linguistic experience.

Although variable marking of grammatical categories is characteristic of early child Greek (stage 2), percentages of missing endings are below Brown's (1973) mark of 90 per cent already in the first period of observation (1;8 to 1;11). Thus, finite verb forms lacking an ending amount to merely 3.8% of verb form tokens (Stephany, 1985, p.109). "Recognition of the inflectional principle in Greek is typically demonstrated by an overall correct usage of predominantly inflectionally marked forms and a drop in type/token ratio below 1.0" (Stephany, 1989, p.159). Such a type/token ratio may serve as a guide to productivity in the absence or near-absence of overgeneralizations

(Fletcher, 1981). For verbs, the ratio is 0.6 with three children observed at 1;10 (age range 1;8 to 1;11) and 0.4 with a fourth (Stephany, 1989, p.158). Incorrect inflectional forms and functional errors are less characteristic of early child Greek than underdifferentiation of grammatical categories partly due to nonstandard morphophonemics. Examples are the less specialized categories of the subjunctive mood and the perfective aspect of the indicative which do not at first distinguish beween subjunctive and future on the one hand and aspect and tense on the other. Likewise, the unmarked accusative singular of nouns is underdifferentiated for case. Rather than learning to provide roots or stems with inflectional markers, children acquiring an inflectional language have to learn how to use inflected forms properly, to enlarge their inventory of forms and thereby enrich and differentiate their system of forms and meanings (Katis, 1984; Stephany, 1985). It seems that, in the acquisition of a fusional language like MG, what leads to the discovery of grammatical morphemes are not so much "leftover segments in storage that have not been mapped as content words" (Slobin, 1985, p.1171), but a growing need to mark grammatical categories and relations clearly in order to express more differentiated meanings or to increasingly comply with adult ways of speaking. Evidence from the early stages of the development of Greek morphology suggests that rather than at first considering plurifunctional morphemes as "unifunctional homonyms" (Karmiloff-Smith, 1979; Slobin, 1985, pp.1227-1229) children operate with globally understood and formally as well as semantically underdifferentiated word forms. Strongly grammaticalized and accordingly frequent morphemes, such as the modal and future particles na and tha or the definite article, may be first approximated with prosodically represented "filler syllables" (Peters & Menn, 1993, p.768; also see Operating Principle Production of Uninterpreted Forms, Slobin, 1985, p.1202). For such morphemes a "'phonology first, morphology later' strategy" has also been observed in the acquisition of English and other languages "suggesting the

need to elaborate a place in linguistic theory for the notion 'partial knowledge of a morpheme'" (Peters & Menn, 1993, p.743).

Since overextension of inflectional patterns (Slobin, 1985, p.1222) and explicit derivation of inflectional forms resulting in morphophonemically non-standard forms is very rarely encountered in Greek children's spontaneous speech and does not occur very frequently in the experimental data either, there is no evidence for an overall U-shaped learning curve for the acquisition of word forms. Rather, errors testifying to the derivation of inflectional forms from other forms or to analogy are already found in the children's spontaneous data from the first period of observation at 1;10 and continue to occur until the end of observation a year later and beyond. Katis (1984) notes that, in both imitated and spontaneous utterances, properly marked forms appear at the same time as the overgeneralized ones. Except for one subject observed at 2;0, her earliest data are from children aged 2;6, however. Since overgeneralizations do not become particularly numerous at any point of development, there is no "stage" of regularization corresponding to Ervin's stage 3. Evidence for inflectional "imperialism", a tendency to make forms conform to the inflectional patterns of the more frequent stem types (Slobin, 1968; 1985, p.1219), is accordingly limited. In view of the many different inflectional patterns of the standard language, it is hardly surprising that the relatively few overgeneralizations which do occur should be based on several inflectional models, thus representing inflectional "regionalism" rather than "imperialism". Besides pattern frequency, the main factors accounting for the inflectional errors occurring in experimentally elicited number and case forms of nouns are "gestalt" features of inflectional forms and semantic features such as animacy (Theophanopoulou-Kontou, 1973). Although overgeneralization by explicit marking does obey Slobin's universal that "errors in choice of functor are always within the given functor class and subcategory" (Slobin,

1973, p.207; Theophanopoulou-Kontou 1973, p.57), errors of underdifferentiation, such as use of a singular form to express plurality or that of an unmarked accusative to express the nominative, do not. Gender confusion, in which a given case-number combination is transferred to another gender (e.g., nominative singular of a feminine -ú stem to nominative singular of masculine -ús stems), seems to be restricted to the younger children. In the fourth through seventh years, overgeneralization of inflectional patterns, such as transfer of the nominative plural of masculine -os stems to masculine -is stems, always occurs in a given number-case constellation of different stem types within one gender.

The "full adult system" (stage 4) will be attained by the age of twelve years at the earliest. The reason is that in the acquisition of MG -- as well as in other languages --, grammatical forms of words are not at first used in their full functional breadth and differentiation. Rather, "the developmental history of any given form reflects the expanding range of functions served by that form" (Berman & Slobin, 1994).

Since the acquisition of inflectional categories as well as of linguistic entities and regularities more generally is not a question of all or nothing and use of a form carrying a given inflectional marker does not necessarily mean full "acquisition" of the grammatical category it expresses, it seems preferable to replace Ervin's model of developmental stages by the "retention model" advocated by Ochs: "The view of language development as a broadening knowledge of the language's potential expressive power is better visualized as a series of textures in which developmentally prior communicative patterns coexist with more recently developed patterns" (1979, p.52; also see Stephany, 1985, p.228f.; 1992, p.301). Correspondingly, emergent grammar in language

development can be considered as a gradual process of spreading systematicity (Stephany, 1992, p.290). Consistent marking develops earlier for certain stem types and grammatical categories than for others. Although number distinctions in the noun emerge before case distinctions, none of these categories is at first generally available to the child. Since MG inflectional patterns of the noun not only depend on gender but also on gender-internal stem types, expression of inflectional categories develops locally and not as across-the-board rules. A certain category is at first distinguished with certain stem types and not with others. Paradigm formation in the acquisition of languages with a rich morphology must, accordingly, not be considered as elaborating the orderly and exhaustive tables to be found in grammar books which comprise all inflectional forms a given lexeme or stem type may assume. As noted by Slobin "all pattern recognition requires a basic ability to take note of familiarity and unfamiliarity. This is only possible if the organism keeps track of the frequency of patterns in experience" (1985, p.1165f.). Since children are more exposed to certain forms of certain types and will also use them more often than others, their experience with inflectional forms will not grow at an equal pace with all forms and stem types. Thus, children will early become familiar with the very frequently used singular/plural distinction of neuter diminutives on -áki/-ákja while the distinction between the nominative/accusative and genitive singular of such stems will only emerge later. Many neuter stems are inanimate and are thus more likely to be used in locative rather than possessive expressions. In contrast to this, feminine stems referring to persons will occur in the singular rather than the plural and are more likely to be used in the genitive expressing possessive or benefactive relations. In the beginning, children will therefore know how to express certain grammatical categories of certain nominal stem types and will only gradually elaborate their inventory of inflectional forms. Besides frequency of occurrence in the input, relevant factors for the development of number and

case marking on the MG noun are prosodic complexity (accent shift rules), and, to a certain extent, semantic complexity (genitive singular vs. genitive plural) (also see Theophanopoulou-Kontou, 1973, p.13). Although there is evidence for the role played by animacy in the use of nouns as actors, goals, or possessors in child Greek, nominal paradigm formation is gender-based since, even in the beginning stage of inflectional development, gender cannot be reduced to animacy: Although 71% of animate noun tokens occurring in three children's spontaneous speech at 1;10 are masculine or feminine and 46% of inanimate noun tokens are neuter (N = 846 tokens of 138 nouns), there is a considerable amount of animate neuters as well as inanimate non-neuters. As noted in the development of many languages (Slobin, 1985, pp.1216-1218), children encounter no particular difficulty in acquiring arbitrary categories such as gender classes, whose expression is obligatory and accordingly frequent due to their high degree of grammaticalization. Although article use contributes to the induction of Greek gender classes (also see Maratsos, 1982, pp.258-263, on German) inflectional patterns are another important source for their construction.

Product-oriented "schemas" (Bybee & Slobin, 1982; Slobin, 1985, p.1226) seem more appropriate than source-oriented rules for describing the development of a fusional morphology like that of MG (Stephany, 1989). Although the few overgeneralizations occurring in child Greek point to a certain degree of analysis of memorized word forms, the possibility that frequent multimorphemic forms have holistic representations in the mental lexicon besides being analytically parsed seems attractive not only for agglutinative languages such as Hungarian (Gergely & Pléh, 1994, p.197f.; MacWhinney, 1985, p.1104; Stemberger & MacWhinney, 1986) but also for fusional ones such as MG. Gergely & Pléh's (1994, p.181) argument that "a fully holistic model of lexical representation ... is highly unlikely for an

agglutinative language like Hungarian" also applies to inflectional languages with their likewise large number of grammatical forms lexemes may assume. A second theoretical model discussed by Gergely & Pléh (1994, p.180) in which bound morphemes are represented independently from stems is even less suitable for fusional than for agglutinative languages. While a third theoretical possibility of "serially specified morphemic entries" (Gergely & Pléh, 1994, p.180) seems more appropriate for agglutinative than for fusional languages, the idea inherent in Caramazza's model of "Augmented Addressed Morphology" (Caramazza, Laudanna & Romani, 1988) that complex word forms may have a double representation being "stored both as holistic unanalyzed units and as morphologically decomposed forms" (Gergely & Pléh, 1994, p.198) is attractive not only for processing languages with a rich morphology but also for their acquisition. It makes the assumption that analysis consists in segmentation and results in separate storage of segments (Operating Principle Unit Formation and Storage, Slobin, 1985, p.1169) less categorical. It also explains why children keep intraword morpheme order constant (Slobin, 1985, p.1231). Contrary to what is implied by Ervin's model of morphological acquisition, in a language like MG with its many inflectional patterns, subpatterns, and exceptions, there does not seem to occur "a more or less complete switch from memorization to rules" at any point of development (Stephany, 1989, p.160).

Since MG word order is governed by pragmatic rather than syntactic principles no evidence can be gained on the question whether, prior to the acquisition of case marking, grammatical relations are syntactically marked by a rigid subject-object order. Rather than being primarily concerned with marking grammatical relations of content words, Greek children adhere to the "highly accessible" pragmatically determined order of the parental language (Slobin,

1985, p.1233). Evidence for the category of subject comes from subject-verb agreement rather than from word order or case marking. Due to the prototypicality of the "manipulative activity scene" and its "'highlights'" of agent and affected object (Slobin, 1985, pp.1175-1177), the most reliable cue to subject-object distinction in early child Greek is animacy. Case marking develops via the inherent lexical content of noun phrases which has been found to play "an important role in the formulation of case marking rules in many languages" (Van Valin, 1993, p.73). The fact that in child Greek the order V-S is much more frequent than S-V overall agrees with MacWhinney's (1985) finding that even children acquiring strict S-O-V or S-V-O languages tend to prepose the verb. A domain in which strict grammatically determined word order is observed by Greek children concerns the position of clitics in relation to the full lexical items they are constructed with, namely articles and clitic personal pronouns (see Operating Principles Storage of Co-occurring units and Phrasal Morpheme Order, Slobin, 1985, pp.1167, 1232).

As in the acquisition of other languages, in child Greek anaphoric (one-word) negation is likely to emerge prior to constituent negation (both expressed by óxi). In spite of some overgeneralization of non-verb constituent negation (óxi) to verb (sentence) negation (dhen), both negators are distinguished already by 1;10. Min is restricted to deontic modal functions from the very beginning. Since, in spoken Greek, the verb is typically clause initial with the negator preceding the negated element, negator choice (dhen as opposed to óxi) rather than its position is formal evidence for the syntactic integration of the negator into the clause. A comparison of the structural complexity of the linguistically most advanced child's negated sentences with her affirmative ones does not confirm Bowerman's observation that "negatives are structurally rudimentary compared to the children's affirmative sentences" and that "syntactic negation" is therefore "an integral part of the sentence and has the effect of reducing its

potential complexity" (1975, p.280). At 1;10, Mairi's MLU is 2.006 words overall, whereas the mean length of utterances negated by óxi is 2.269 and that of sentences negated by dhen 2.658.

The categories of aspect, tense, and aktionsart are not only interrelated in the history and structure of the languages of the world but especially so in language acquisition (Slobin, 1985, pp.1181-1184). Their prototypical combinations predominate in the input language and are the first ones to develop in child Greek (Stephany, 1985). The temporal relation between a verbalized situation and speech time -- the only point of reference taken in early child speech --, crucially depends on the temporal structure of the situation expressed. While dynamic or stative durative situations may be simultaneous with speech time, punctual situations present themselves as either expected or past, eventually present by their results. Furthermore, the practical ordering relation between the time of the situation expressed and speech time accompanying children's use of the imperfective non-past and the perfective past, seems to be an important condition for the development of the truly deictic use of tense. While tense depends on aspect in child Greek, aspect is in its turn dependent upon lexical aktionsart. Although there is a dependence of aspect on semantic verb class in the standard language as well (Sasse, 1991), it is much stronger in early child Greek, at least up to 2;6. Stative verbs nearly exclusively occur in the imperfective non-past (Stephany, 1985). Telic verbs are much more often used in the perfective past than in the imperfective non-past indicative ("present") (Stephany, 1985). While atelic verbs are typically attested in the imperfective past, telic verbs tend to occur in the perfective past (Katis, 1984). Due to its dependence on aktionsart, "the category of aspect is not yet specialized" in early child Greek (Stephany, 1992, p.295). Only when one and the same verb will be used "in the same tense or mood with both the perfective and the imperfective aspect does the category of

aspect shift from a more concrete category accompanying "aktionsart" to a more abstract grammatical category" (Stephany, 1992, p.295). Once the category of tense is explicitly expressed, the category of aspect specializes, becoming de-semanticized and less strongly tied to the semantic structure of the verbs with which it is used (Stephany, 1992, p.298f.). A similar process of specialization is observed in the subjunctive mood, which develops into the more specialized categories of future tense and subjunctive mood (Stephany, 1992, p.297). Since the grammatical categories of mood and aspect emerge before tense, it would be possible to describe the system of early child Greek verb forms without referrring to tense. However, such an analysis would not only leave examples of early deictic use of the perfective past unexplained, but would also disregard the close connection between aspectual and temporal categories evidenced in the early stages of the acquisition of Greek. It therefore seems preferable to assume that in spite of the predominant role of aspect, tense is at least implicitly present from the very beginning (Stephany, 1981; 1985, p.152).

Crosslinguistic comparison of child language allows to determine the role played by the semantic and grammatical structure of the language acquired. Do children first construct "a universal Basic Child Grammar" and "move from a UNIVERSAL grammar to the divergent grammars of individual languages" as hypothesized by Slobin (1985, p.1160) or do they "begin with grammars that are slanted toward the semantic structure of the input language" as Bowerman (1985, p.1285) suggests? The second view which takes basic meaning distinctions not "as a single, privileged set of semantic notions" but "as a system of relatively accessible alternatives for structuring semantic space" (Bowerman, 1985, p.1284) seems preferable. If grammar is relatively motivated semantically and pragmatically and there is thus "sufficient

[1] Except for Mackridge (1985), whom I follow quite closely in this descriptive sketch of MG, the following reference grammars of MG should be mentioned: Babiniotis & Kontos, 1967; Mirambel, 1949; Ruge, 1986; Triantaphyllidis, 1941/1978.

[2] In a study of MG main stress in the theoretical framework of lexical phonology operating with final (and certain penultimate) lexical stress assignment and treating certain vowels as extrametrical, Malikouti-Drachman & Drachman (1989) claim the "trisyllabic rule" to be an epiphenomenon.

[3] Fenk-Oczlon & Fenk (1994) found a similar kind of crosslinguistic negative correlation between syllable complexity and number of syllables used to express propositions.

[4] Although assimilation by anticipation is characteristic of standard MG as well, the predominance of anticipatory (regressive) harmony seems to be characteristic of child speech in general as well as adult slips of the tongue (Vihman, 1978, p.324).

[5] Misinterpretation of initial unvoiced stops may continue in the adult language; e.g., i *bríza instead of i príza 'pluck' because of predominant use in the prepositional phrase s-tin príza [stim bríza] 'into-the pluck' (M. Ninos, p.c.).

[6] Since the dh extension is largely morphologically conditioned (for details see Mackridge, 1985, p.136), some overgeneralizations of this type, such as thiádhes 'aunts' (besides standard thíes) have entered the colloquial language (Chatzidakis 1907/II:16-18).

[7] In compounds, the adjective paljós 'old, belonging to former times' has a metaphorical, pejorative sense.

[8] Some of the differences of article use in the observational as compared to Theophanopoulou-Kontou's experimental data are likely to result from elicitation techniques used in the experimental study.

[9] Thomadaki (1988, p.78) points to language acquisition as a possible source of MG lexical doubles like eksasthenó and eksasthenízo 'weaken' (both causative and non-causative).

[10] There are models for such multi-layered formations in the history of MG as well as in current usage: pétra 'stone:FEM', petr-ádh-i 'stone-(hist.)DIM-NEUT' (= 'jewel'), petr-adh-áki 'stone-(hist.)DIM-DIM:NEUT' (= 'little stone') (Thomadaki, 1986); avghó 'egg', avgh-ul-áki 'egg-DIM-DIM:NEUT' (= 'little egg'). It is interesting to note that while *petr-áki 'stone-DIM' and *avgh-áki 'egg-DIM' are clearly ungrammatical, the status of forms like avgh-úli 'egg-DIM' or ghat-ulíni 'cat-DIM' (more so than ghat-ulína) is unclear (A. Makatsori, p.c.). The limits of what is grammatically possible do not seem to be clearcut in an area of derivation such as this one where the speaker feels a need for forms with high expressive power.

[11] Although the girl Florita, casually observed during one afternoon when she was about two years old, clearly demonstrated that she had segmented the stress-bearing diminutive suffix by asking for all kinds of objects indiscriminately calling them áki, it is doubtful whether this early segmentation had a role to play in the development of her grammar (also see Ferguson, 1977, p.225).

[12] The standard deverbal noun tsúgriz-ma 'collide-NOMLR:NEUT' (= 'collision') has been lexicalized and is not a simple nominalization.

[13] In the standard language, álos is used with a preceding definite article for definite reference and either with the indefinite article or without an article for indefinite reference.

[14] For an explanation why, in spite of such parallels, the ontogenetic development of language must not be interpreted as "recapitulating" historical development see Slobin (1994).

[15] Mairi's lack of the adjectival use of demonstratives at 1;10 is difficult to interpret. Would massive use of the definite article result in the complete extinction of an earlier stage in which definite reference was expressed by demonstratives? It seems more likely to assume that this girl did not signal definite reference overtly until the definite article emerged in her speech.

information available to the child in the speech to which it is exposed to enable it to construct a grammar" (Van Valin, 1993, p.2), language-specific ways of saying things (Pawley, 1994) and grammatical structure develop together with semantic structure from the very beginning (also see Katis, 1984; Rispoli, 1991). The very low degree of grammaticalization characteristic of early child languages is what makes them look so much alike.

Further research on the acquisition of MG will concern the following areas: In order to eventually cover the entire course of morphological development of this typical Indo-European language with its rich fusional inflection and to gain insight into pre- and protomorphological stages of the acquisition of Greek, observation of monolingual children in the first half of their second year is being started. - Inspired by Berman & Slobin (1994), narratives based on the storybook without words Frog, where are you? by Mercer Mayer (Dial Books for Young Readers, New York, 1969) have begun to be elicited from preschool, school-age, and adult Greek monolinguals. The demands of connected discourse will uncover ways in which the grammatical system of the language is put to use at different ages for relating events as well as introducing and maintaining referents. - Through the collaboration of linguists with speech pathologists the theoretical studies of child Greek may prove of practical value for the elaboration of standardized diagnostic tests in the domain of developmental dysphasia. - Finally, the development of Greek in the child may serve as a yardstick of the acquisition of MG as a second language, a field of research for which the ground is prepared by the European Union.

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[16] By 2;4, two of the three children studied explicitly express partitive meaning by prepositional phrases introduced by the preposition apó 'from'; e.g., Janna, tha dhúme apó aftá 'FUT.PTL see:PFV:NONPAST:1PL from those' (= 'we'll see some of those').

[17] While V-S-O is as frequent or even more frequent than S-V-O in my observational data, "the VSO order is almost entirely non-existent" in Tsimpli's (1991, p.140) "fairly substantial corpus" of child Greek collected from two children. Tsimpli does not mention whether the children she studied are growing up in the United Kingdom and are Greek-English bilinguals. At any event, my data contains counterevidence to her claim that V-S-O order is generally absent from the early stages of linguistic development (p.141).

[18] My data also seem to differ from Tsimpli's (1991) as far as person agreement is concerned. If the examples she cites are representative of her corpus, the children she studied have not yet acquired first person verb forms and do not contrast third and second person. They thus overuse unmarked third person singular verb forms with first person singular and third person plural subjects. In my data from 1;10, such examples are extremely rare.

[19] This tendency is also to be observed in the standard language, where these adverbs "are on their way of becoming more grammaticalized, approaching the status of prepositions (see Fries 1988; Stephany 1990)" (Stephany, 1992, p.295). See Theophanopoulou-Kontou (1992) for an analysis within the X-bar model.

[20] At least in the speech addressed to the children at 1;10, both the imperfective past and the present perfect occur rarely (Stephany, 1985, pp.185ff.).

[21] The following is based on Stephany (1985, p.172ff., and 1986).

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TABLE 3
Declension of kalós 'good'

MASC SG	NOM	kalós	PL	NOM, VOC	kalí
	VOC	kalé		ACC	kalús
	ACC	kaló		GEN	kalón
	GEN	kalú			
FEM SG	NOM, VOC, ACC	kalí	PL	NOM, VOC, ACC	kalés
	GEN	kalís		GEN	kalón
NEUT SG	NOM, VOC, ACC	kaló	PL	NOM, VOC, ACC	kalá
	GEN	kalú		GEN	kalón

TABLE 4
Correspondence between Pronouns and Adverbs

Pronouns		Adverbs		
Animate	Inanimate	Place	Time	Manner
Contrastive Indefinite				
álos 'other'	álo 'other'	alú 'elsewhere'		aljós 'otherwise'
Indefinite (assertive)				
kápios 'someone'	káti 'something'	kápu 'somewhere'	kápote 'once'	kápos 'some-how, somewhat'
énas 'one'				
merikí 'some'				
Indefinite (non-assertive)				
kanénas 'no one'	típota 'nothing'	puthená 'nowhere'	poté 'never'	kathólu 'not at all'
Interrogative				
pjós 'who'	ti 'what'	pu 'where'	póte 'when'	pos 'how'
pósi 'how many'	póso 'how much'			jatí 'why'
Demonstrative				
aftós 'this, that'	aftó 'this, that'	edhó 'here'	tóra 'now'	étsi 'thus'
ekínos 'that'	ekíno 'that'	ekí 'there'		
tútos 'this'	túto 'this'			

TABLE 1
MG Vowels and Consonants

(a) Vowels

i		u
e		o
	a	

(b) Consonants

p,b	t,d	k,g
f,v	th,dh, s,z	x,gh
	t^s,d^z	
m	n	
	l, r	

(c)

Greek letters	Transcription/ Pronunciation	Greek letters	Transcription/ Pronunciation
A, α; αι	a; [ε]	N, ν	n
B, β	v	Ξ, ξ	ks
Γ, γ	gh [ɣ], j [j]	O, ο; οι; ου	o [ɔ]; [i]; [u]
Δ, δ	dh [ð]	Π, π	p
E, ε; ει	e [ε]; [i]	P, ρ	r
Z, ζ	z	Σ, σ	s
H, η	i	T, τ	t
Θ, θ	th [θ]	Y, υ	i
I, ι	i	Φ, φ	f
K, κ	k	X, χ	x [ç, x]
Λ, λ	l	Ψ, ψ	ps
M, μ	m	Ω, ω	o

TABLE 2
Sample Noun Inflections

Masculine Gender

SG	NOM	ánthropos	PL	NOM, VOC	ánthropi
	VOC	ánthrope		ACC	anthrópus
	ACC	ánthropo		GEN	anthrópon
	GEN	anthrópu			

Feminine Gender

SG	NOM, VOC, ACC	jinéka	PL	NOM, VOV, ACC	jinékes
	GEN	jinékas		GEN	jinekón

Neuter Gender

SG	NOM, VOC, ACC	pedhí	PL	NOM, VOV, ACC	pedhiá
	GEN	pedhiú		GEN	pedhión

TABLE 6
Non-past and Past Verbal Endings

		Classes 1 and 2		Class 2
		Non-past	Past	Imperfective Non-past
SG	1	-o	-a	-ó, -áo/-ó, -ó
	2	-is	-es	-ís, -ás, -ás
	3	-i	-e	-í, -ái/-í, -í
PL	1	-ume/-ome	-ame	-úme, áme/-úme, -úme
	2	-ete	-ate	-íte, -áte, -áte
	3	-un(e)	-an(e)	-ún(e), -án(e)/-ún(e), -ún

TABLE 7
Data on Greek Language Acquisition

Child, Sex	Age at data	Character of data	Investigator
Natali, F	1;8,10-1;8,17	4.75 hrs., taped	Stephany
Spiros, M	1;8,24-1;9,11	4 hrs., taped	Stephany
Mairi I, F	1;9,17-1;9,26	5.5 hrs., taped	Stephany
Janna I, F	1;10,25-1;11,19	13 hrs., taped	Stephany
Maria II, F	2;3,9-2;3,13	6 hrs., taped	Stephany
Mairi II	2;3,16-2;3,22	7.5 hrs., taped	Stephany
Janna II	2;5,12-2;5,15	6 hrs., taped	Stephany
Marilena I, F	2;6-2;7	35 hrs., taped	Katis
Marilena II	2;9	10 hrs., taped	Katis
Maria III	2;9,12-2;9,13	4 hrs., taped	Stephany
Mairi III	2;9,14-2;9,15	4.5 hrs., taped	Stephany
Janna III	2;11,9-2;11,11	4 hrs., taped	Stephany
Marilena III	2;11-3;0	18 hrs., taped	Katis
Marilena IV	3;2-3;3	26 hrs., taped	Katis
Marilena V	3;5-3;6	18 hrs., taped	Katis
Marilena VI	3;8-3;9	19 hrs., taped	Katis
Marilena VII	3;11-4;0	11 hrs., taped	Katis
Marina, F	4;4-4;7 (trilingual)		Kazazis
Jannis, M	6;4-6;11	diary notes, pseudo-experimental	Theophanopoulou-Kontou
4 subj., M/F	2;0	40-60 phrases taped per child	Panagopoulos
21 subj., M/F	2;0 - 4;11	experimental	Katis
21 subj., M/F	2;0 - 6;6	experimental	Theophanopoulou-Kontou
>12 subj., M/F	2;0 - 9;0	experimental	Drachman/Malikouti-Drachman
25 subj., M/F	2;8-6;0	experimental	Stephany
60 subj., M/F	6;0-13;0	experimental	Bellin, Natsopoulos
49 subj., M/F	(bilingual)	experimental	Bellin, Natsopoulos

Pronouns		Adverbs		
Animate	Inanimate	Place	Time	Manner
tétios 'such a one'	tétio 'such a one'			
tósi 'so many'	tóso 'so much'			
Relative and correlative				
pu 'who'			ótan 'when'	ópos 'as'
Universal				
káthe 'each'		pantú 'everywhere'	pánta 'always'	
kathénas 'each one'				
óli 'everyone'	óla 'everything'			

TABLE 5
Aspect, Tense, and Mood

Mood	Tense	Aspect	
		Imperfective	Perfective
Indicative	Present	dhiaváz-o[a]	-
	Past	dhiávaz-a	dhiávas-a
	Future	tha dhiaváz-o	tha dhiavás-o
Subjunctive		na dhiaváz-o	na dhiavás-o
Imperative		dhiávaz-e	dhiávas-e

[a] dhiavázo 'I read'

TABLE 10
Development of Emphatic and Clitic Personal Pronouns

	Emphatics		Clitics	
Stage I	3SG:NEUT:NOM/ACC	aftó		
Stage II	1SG:NOM	eghó	1SG:GEN	mu
	3SG:NEUT:NOM/ACC	aftó	3SG:NEUT:ACC	to
	3PL:NEUT:NOM/ACC	aftá	3PL:NEUT:ACC	ta
Stage III	1SG:NOM	eghó	1SG:GEN	mu
	1SG:OBL	eména	1SG:ACC	me
	2SG:NOM	esí	2SG:GEN	su
	2SG:OBL	eséna	2SG:ACC	se
	3SG:MASC:NOM	aftós		
	3SG:FEM:NOM/ACC	aftí		
	3SG:NEUT:NOM/ACC	aftó	3SG:NEUT:ACC	to
	1PL:NOM	emís	1PL:OBL	mas
	3PL:NEUT:ACC	aftá	3PL:NEUT:ACC	ta
Stage IV	1SG:NOM	eghó	1SG:GEN	mu
	1SG:OBL	eména	1SG:ACC	me
	2SG:NOM	esí	2SG:GEN	su
	2SG:OBL	eséna	2SG:ACC	se
	3SG:MASC:NOM	aftós		
	3SG:MASC:ACC	aftó(n)	3SG:MASC:ACC	to(n)
	3SG:FEM:NOM/ACC	aftí	3SG:FEM:ACC	ti(n)
	3SG:NEUT:NOM/ACC	aftó	3SG:NEUT:ACC	to
	1PL:NOM	emís	1PL:OBL	mas
	3PL:NEUT:NOM/ACC	aftá	3PL:NEUT:ACC	ta

	Emphatics		Clitics	
Stage V	1SG:NOM	eghó	1SG:GEN	mu
	1SG:OBL	eména	1SG:ACC	me
	2SG:NOM	esí	2SG:GEN	su
	2SG:OBL	eséna	2SG:ACC	se
	3SG:MASC:NOM	aftós		
	3SG:MASC:ACC	aftó(n)	3SG:MASC:ACC	to(n)
			3SG:MASC:GEN	tu
	3SG:FEM:NOM/ACC	aftí	3SG:FEM:ACC	ti(n)
			3SG:FEM:GEN	tis
	3SG:NEUT:NOM/ACC	aftó	3SG:NEUT:ACC	to
			3SG:NEUT:GEN	tu
	1PL:NOM	emís	1PL:OBL	mas
	3PL:MASC:NOM	aftí	3PL:MASC:OBL	tus
	3PL:FEM:NOM/ACC	aftés	3PL:FEM:OBL	tis
	3PL:NEUT:NOM/ACC	aftá	3PL:NEUT:ACC	ta

TABLE 8
Development of Noun Inflection

1;10 to 2;6	SG	NEUT/FEM/MASC	unmarked
	PL	NEUT	-a
		MASC/FEM	-es
1;10/2;4 to 3;9/4;1	SG	ACC NEUT/FEM/MASC	unmarked
		NOM NEUT/FEM	unmarked
		MASC	-s, -os
		GEN NEUT	-u
		FEM	-s
		MASC	unmarked, -u
	PL	ACC NEUT	-a
		FEM/MASC	-es
		MASC	-us
		NOM NEUT	-a
		FEM/MASC	-es
		MASC	-i
3;2 to 4;11	PL	GEN NEUT/FEM/MASC	-on
	overgeneralizations becoming more frequent		
3;9/4;1 to 6;6/12;0	gradual mastery of rarer inflectional types (e.g., FEM:NOM or GEN:SG ending in -os); overgeneralizations continuing		
after 12;0	adult usage		

TABLE 9
Development of the Definite Article

			MASC	FEM	NEUT
1;10 to 2;10	SG	NOM	o	i	to
		OBL	to	ti	to
	PL	NOM	-	-	ta
		ACC	-	ti	ta
2;4 to 2;10	SG	NOM	o	i	to
		ACC	to/ton	ti/tin	to
		GEN	tu	ti/tis	-
	PL	NOM	-	i	ta
		ACC	-	tis	ta
3;2 to 5;3	gradual mastery of FEM:GEN:SG and FEM:ACC:PL tis and of the allomorphy of MASC:ACC:SG ton and FEM:ACC:SG tin				

TABLE 11
Differentiation of the Future from the Subjunctive

Stage I	Subjunctive verb forms used without particles
Stage II	One global modal particle na, varying with a, used in less than 50% of tokens
Stage III	Modal particles (mainly na) and future particle tha, both varying with a, used in more than 50% of tokens
Stage IV	Particles used in more than 80% of tokens, with particle types distinguished in at least 50% of these
Stage V	Particles used in more than 93% of tokens, with particle types distinguished in at least 75% of these

TABLE 12
Aspect, Tense and Aktionsart in Child Greek

Mood	Aktionsart	
	Telic-Punctual	Atelic-Durative, Stative
Indicative	Perfective Past	Imperfective Non-Past
Subjunctive	Perfective	Imperfective
Imperative		

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Von 1968 an erschienen die von Prof. Dr. Hansjakob Seiler herausgegebenen Arbeitspapiere des Instituts für Sprachwissenschaft. Nach der Emeritierung von Prof. Dr. Seiler im März 1986 wurde eine neue Folge mit neuer Zählung und dem Zusatz "Neue Folge" (N. F.) begonnen. Herausgeber ist das Institut für Sprachwissenschaft.

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