

Variation and Imperfection Their Implications to the Concept of Language

Rebeen Abdullah Kareem

Department of English, College of Languages, University of Sulaimani, Sulaimani, Kurdistan Region – F.R. Iraq

Abstract—The many various definitions of the term ‘language’ make it improbable to account for the nature of the variations within the languages of the world. It seems that the recent and dominant concept of language has certain shortfalls with regard to the accountability and definitions of variations. By giving a different account of certain parameters and by arguing that the human language should be seen as a system of thought having only syntactic and semantic properties, the cross-linguistic variations are considered as various morpho-phonological systems of the many languages of the world, which ought not to be considered as part of the generative language computation. Such arguments will have significant implications to the understanding and definitions of the concept of language. The findings indicate that, if the goal of the linguistic theory is to seek a perfect system and to minimize variations within and across the languages, the term ‘language’ should be seen as a single, natural, universal, and invariant system without assuming that its computation is a double-interface. In such an understanding, the ‘one’ human language should be perceived as a system of thought which has only syntactic and semantic properties; whereas the ‘many’ languages of the world are considered to be the conventional morpho-phonological systems that should not be part of the generative language computation.

Key Words—Concept of Language, Imperfection, Variation, Universal Grammar, Faculty of Language (FL), Language of Thought (LOT).

I. INTRODUCTION

Within generative theory, differences or variations among particular languages of the world are accounted for by parameters. Depending on one’s definition of the term of ‘language’ and the objective of linguistic theory, variations will have different implications to the notions of language and in turn a ‘perfect’ language system. It is not often clear what exactly the nature of variability (including cross-linguistic variations) is and how variability relates to the issue of the true nature of the ‘faculty of language’ (FL). Is variation phonological or syntactic? And, most importantly, what is the relevance of the understanding and definitions of the concept of ‘language’ to the notions of imperfection and phonology? Such questions will be answered in light of a particular conception of language, which will be the focus of the next section.

II. CONCEPTION OF LANGUAGE

There are a number of views or definitions to the concept of language. Within generative enterprise such understanding has changed over the last decades. In the early days of generative grammar (e.g. Chomsky, 1965), the term ‘language’ was taken to be ‘the theory of all particular languages’ (Burton-Roberts, 2011: 8) (see also Chomsky 1986). Language was to be understood as a ‘generic’ term, in which all the particular languages would consequently become instances of the cover term of language. In other words, in its generic interpretation, the concept of ‘language’ ranges over all the particular languages such as English, Kurdish, Arabic, or Swahili, etc. Languages are ‘languages’ because they are examples of (they instantiate) the concept ‘language’. In linguistic theory, then, ‘language’, understood generically, is a purely theoretical (methodological) concept; it has no reality apart from particular ‘actual languages’. Moreover, since the term ‘language’ is only used theoretically, its nature will accordingly be determined by the properties of actual languages and its theory by the theory of particular languages.

As generally known, within modern linguistic theory, such theory, which is concerned with linguistic universals, is usually referred to as ‘Universal Grammar’ (UG) (also known as ‘the faculty of language’ (FL)) (see, among others, Chomsky 1986, 1995a, 1995b). On the generic concept of ‘language’, then, the theory of language (as UG) is universalist in ranging over all languages. This is one common way of thinking of UG. Such theory of language accounts for both the differences and the general properties shared by the particular languages. Therefore, the general properties shared by particular languages must figure in UG. Examples of such properties are that languages are functional and are used for communicative purposes. They are externalizable through phonology which in turn makes them non-natural and conventional. In addition, languages are behavioral and are affected by society and culture. Although these properties are undeniable and unarguable, they seem to pose problematic implications for the study of language. Most importantly, it will be difficult to separate and isolate a purely linguistic study from all the external and non-linguistic factors such as society and culture.

In such generic view of language, because there is no 'singularity' of the object of the study, it will thus be difficult to seek a 'perfect' system of language. All particular languages of the world are examples of the 'language as sound with a meaning' (Chomsky, 1995:2; Berwick and Chomsky, 2008:7), which emphasizes their conventionality and non-naturalness, and hence imperfections and variations arise. Therefore, such understanding to the notion of language will be rejected in this study.

In recent years, Chomsky has shifted from the generic and plurality view of language to a naturalist and singularity view of language. In fact, this shift has started since at least Chomsky (1986), as it has been questioned whether particular languages, understood as socio-cultural constructs such as English or Kurdish, can possibly be objects of naturalistic enquiry. Even Chomsky (1991: 51) submits that "some day...the systems found in the world will not be regarded as languages in the strict sense, but as more complex systems, much less interesting for the study of human nature and human language... unhelpful for determining the real properties of the natural world".

Thus, within this naturalistic and singularity view of language, language is seen as 'a real object of the natural world' (Chomsky, 1995a:11). That is, language is to be understood non-generically, as a realist and naturalist concept. In this viewpoint, the emphasis shifts to a single, universal, natural, and invariant 'language' instead of the many particular languages of the world. Instead of taking the shared and general properties of particular languages and figuring them in UG, in the realist/naturalist view, UG obtains a changed definition, and seems to be a theory of a 'radically internal language' or the theory of one human language. The objective of linguistic theory is thus the singularity of the one natural perfect system of 'language'. In other words, the theory of language should not be about the formal grammars of the particular languages; UG itself is the one grammar itself. The question is then what is the relation of the particular languages to the one 'language'? It is not clear now what the answer to this question is. Although an inborn cognitive possession of UG facilitates the acquisition of particular languages and that particular languages are principally known in advance of experience, it should not be thought, according to Chomsky (2002), that they are examples of the one and only 'language'. In acquiring a particular language, a child needs to 'discover what is different about, particular to, that language' (Burton-Roberts, 2012). It is worth noting that one thing that has not changed or shifted (which is also in clear tension with this shift of view) is the characterization 'language as sound with a meaning' (Chomsky, 1995a: 2; Berwick and Chomsky, 2008:7).

Whether the term 'language' is understood generically or realist/naturally or whether the object of linguistic theory is the singularity of 'language' or the plurality of particular languages, variations and differences among particular languages are still evident and admitted. However, depending on the conception of language, variation and in turn imperfection will have different implications to the notion of language. This will be the topic of the next section.

III. VARIATION AND IMPERFECTION

The goal of the Minimalist Program (recent trend within generative enterprise) is to adopt the realist/naturalist view of language and to believe that the objective of linguistic theory is the singularity of a perfect system of 'language' (Chomsky, 1995; Chomsky, 2000). This in turn raises the question about the true nature of such 'perfect system'. Such a system, as Chomsky (2002: 105) describes, is 'optimally designed to meet certain conditions imposed by other cognitive systems that the language faculty interacts with'. These other systems are the conceptual-intentional system (also referred to as Logical Form (LF)), a system which is internal to the mind and which contains innate ideas, and the articulatory-perceptual system (also referred to as Phonological Form (PF)), which is, according to Chomsky, independent of the language faculty. In order for the language faculty to be useable at all, it has to interact with these two other systems (Chomsky, 2002). Thus, in order for language to interact with those systems and in turn be a perfect system, and given that it is essentially an information system, the information it stores must be accessible to those systems. In other words, language is perfect in the sense that it is designed to interact with and be interpretable by those systems.

However, as Chomsky himself admits, human language does not seem to be 'perfect'. It should be noted here that imperfections essentially refer to choices of optionality, irregularity, and variability within and across various languages. Thus, it seems that the notions of variability and imperfection are closely related. That is, variations evidently imply imperfections with the system. Furthermore, as Chomsky puts it, the fact that there are many languages in the world is in itself a form of imperfection. Hence, in order to acquire an empirically comprehensive definition of perfection, possible imperfections need to be identified. In fact, as Chomsky submits, if the research direction targets the apparent imperfections, it will positively have some optimal computational function. Imperfections are mainly 'uninterpretable features' (Chomsky, 2002: 112). Interestingly, he thinks that the imperfections are mainly due to phonology (morphology is included within such system) (Chomsky, 2002). He actually submits that 'the whole phonological system looks like a huge imperfection, it has every bad property you can think of' (Chomsky, 2002: 118).

Therefore, if imperfections are due to phonology, and if phonology (in Chomsky's view of language) is included within the UG/FL, how do we obtain a 'perfect' language system? An answer to this question, on the surface of it, seems implausible since variations and the fact there are many particular languages in the world are inevitable. Typically, in the current linguistic theory, variations among the languages are accounted for by parameters. Since variations are largely considered to be syntactic, they do not seem to offer an answer or an explanation as to how to conceive a 'perfect' system of language. Therefore, an alternative way is to contemplate that they are phonological rather than syntactic. And, if such contemplation is possible, how does it help in achieving a 'perfect' system? The answer to this question will be in the next section. For now, attention will

be turned to some variations (imperfections) and argue if they can be considered as phonological.

One important variation among the languages is accounted for by the head-directionality parameter. Linguists often classify particular languages according to a head directionality parameter in phrases. Thus, languages are classified according to whether they are either head-initial, which means the head of a phrase precedes its complements, or head-final, which means the head of a phrase follows its complements. In other words, the head parameter is then supposed to have only two possible values; that is, a language is either head-final or head-initial. For instance, English is often thought to be more of a head-initial language in which heads precede their complements. Japanese, on the other hand, is thought to be head-final in which complements precede their heads.

However, there are languages which have non-uniform setting of head parameter. In other words, in certain languages (Kurdish as an example) some types of phrases are head-initial while some other types of phrases are head-final. For instance, a phrasal category such as noun phrase (NP) in Central Kurdish is head-initial since numerals or specifiers modifying the noun (the head) precede it while the complement follows. Adjective Phrases (AP) usually follow nouns and modify them by means of Izafa marker IZ (-i), which is analyzed as the head of its phrase, which is represented as IzP (see Tahir's 2018 for an account on Izafa Construction in Central Kurdish). The following examples explain this point:

çwar xêndkar-i zanko
[NP[Spec[N'[IzP]]]]
'four university students'

dû kiç-i jiwan
[NP[Spec[N'[AP]]]]
'two beautiful girls'

However, the functional phrasal category of Tense Phrase (TP) in Central Kurdish is surfaced to be head-final in which both the specifier and the complement precede the head (T) (see Kareem 2016 for further analysis and derivation of the TP in Central Kurdish).

Even within some particular phrases the head directionality can be either of the two values depending on the complement the head takes. A number of phrases in Central Kurdish have mixed-headedness. For instance, AP can be either head-initial or head-final, and this does not seem to affect the meaning at all.

le to jiwantir (head-final)
[AP[Spec[PP[A']]]]
'more beautiful than you'

jiwantir le mang (head-initial)
[AP[Spec[A'][PP]]]
'more beautiful than the moon'

Again, such optionality or mixed-headedness of APs in English cannot be noticed; that is, APs in English are head-

initial. In addition, in some cases depending on the complement the head takes, a phrase can be either head-initial or head-final. Verb Phrase (VP) in Kurdish is oftentimes head-final. Usually, the specifier of the VP, which is the subject of the sentence, precedes the head which in turn follows its complement, as exemplified below.

ew nan de-xwat
He food IND-eat.PRS.3rd.SG
'He is eating (food)'

However, when the complement of the verb is a Complementizer Phrase (CP), the VP is actually head-initial.

min dezan-im ke ew nan dexwat.
I know-1st.SG that he food is eating.3rd.SG
'I know that he is eating (food).'

It is worth noting that VPs in English are always head-initial and that complements always follow the verb.

Even those languages that are considered to be strictly either head-final or head-initial might contain phrases which go the other way around. In addition, in some languages, the head directionality of functional categories is sometimes difficult to identify. An example of such languages is Central Kurdish in which it is hard to identify the headedness of functional categories such as Agreement Phrase (AgrP), Aspect Phrase (AspP), Negation Phrase (NegP) (See (Kareem, 2016) for explanations and possible structural derivations of such functional categories).

The conclusion from the above observations is that even if the head parameter could restrict any specific language to be either head-final or head-initial, it would still be hardly regarded as a syntactic phenomenon. The reason is that it is concerned with order of the head and the complement, and since linear order is regarded as a phonological phenomenon (Chomsky 2002), this parameter can hardly be considered syntactic. And, the fact that in some languages (such as Kurdish) it is sometimes problematic to exactly identify whether a particular type of phrase is head-final or head-initial can be regarded as an argument against regarding this parameter as syntactic. In other words, as Berwick and Chomsky (2008: pp. 8–9, 15) submit, although traditionally regarded as syntactic, head parameter seems clearly phonological. In addition, since there is optionality, it thus seems that such a parameter is not interpretable at the conceptual-intentional system (CI). And, if anything is an 'uninterpretable feature' (Chomsky 2002: 112), it cannot be considered syntactic.

Related to order is another variation among the languages which is referred to as word order. Such a parameter is concerned with the order of syntactic constituents of a language and how various languages employ different word orders. The basic word order is decided according to the relative order of the basic constituents of a clause, namely, subject (S), verb (V), and object (O). Thus, theoretically, there seems to be six orders for all the languages of the world: (SVO), (SOV), (VSO), (VOS), (OSV), and (OVS). Most languages of the world are

either (SOV) or (SVO); some few languages adopt (VSO), and the other orders are very rare. Although this parameter is highly regarded as syntactic, somehow for the same arguments given for head parameter, this parameter can also be seen as phonological. Different languages employ different word orders to convey the same semantic idea. For example, English employs (SVO) order while Kurdish employs (SOV) to convey almost exactly the same proposition. Sometimes, even within one language different orders are employed with no difference in meaning at all. Although Central Kurdish has mostly SOV order, it can display some flexibility due to being a pro-drop language. The basic word order is SOV, as exemplified below.

Karwan name-yek-î nusî
 Karwan letter-DET-CLC:3SG wrote
 ‘Karwan wrote a letter.’

Since pronominal clitics license subject pro-drop, it seems that there is some flexibility with regard to word order. In the above example, the verb hosting the pronominal clitic can be fronted in the sentence and the object can follow it, thus yielding (S)VO order. It should be noted, though, that such an order is a marked one.

(Karwan) nus-î name-yek
 (Karwan) wrote-CLC:3SG letter-DET
 ‘Karwan wrote a letter.’

In addition, word order flexibility can also be seen in double-object constructions (di-transitive verbs). The following examples clearly illustrate this point. Again, it should be noted that the last two examples are marked orders.

(Mary) sê sêw-î da be John
 Mary three apple-CLC:3SG give.PST to John
 ‘Mary gave John three apples.’
 (SO_dVO_i)

(Mary) sê sêw-î be John da
 Mary three apple-CLC:3SG to John give.PST
 ‘Mary gave John three apples.’
 (SO_dO_iV)

be John (Mary) sê sêw-î da
 to John (Mary) three apple-CLC:3SG give.PST
 ‘Mary gave John three apples.’
 (O_iSO_dV)

sê sêw-î da (Mary) be John
 Three apple-CLC:3SG give.PST Mary to John
 ‘She gave John three apples.’
 (O_dVSO_i)

Such flexibility with regard to word order can sometimes be observed in English as well. As mentioned above, English is an SVO, as in *I don't know this* but OSV is also possible: *This I don't know*. This process is called topic-

fronting (also topicalization) and is extremely common. OSV in English is a marked word order because it emphasizes the object. An example of OSV being used for emphasis:

A: *I can't see John.*

B: *What about Bill?*

A: *Bill I can see.* (rather than *I can see Bill*)

Since there is optionality cross-linguistically and flexibility within particular languages with regard to word order, it is thus better not to regard this parameter as syntactic if the objective of linguistic study is the singularity of a perfect system of language. The linear order seems to be imposed by phonology instead and is not semantically interpretable; that is, it is not interpretable by the conceptual-intentional system (CI). In fact, the current trend in the Minimalist Program takes word order out of grammar (the computational system) and leaves it to the PF interface (Chomsky 1995a:334).

Another example of variation among the languages is the presence or absence of an explicit subject within an independent clause. This variation is referred to by the Null Subject Parameter (also known as Pro-drop Parameter). Null Subject languages are those languages which lack an explicit subject in an independent clause. Usually, such languages are morphologically rich in which they express person, number, and/or gender agreement via a referent on the verb and thus the presence of an explicit subject becomes redundant. While English is not a null subject language, Central Kurdish is. Since Central Kurdish is a morphologically rich language in which pronominal clitics or agreement markers on the verb mark the subject, the presence of an overt subject renders unnecessary (see Kareem 2016; Opengin 2013 for more information on pronominal clitics and agreement markers in Central Kurdish). English, on the contrary, is a morphologically poor language which necessitates the presence of an explicit subject in the clause. The realization of an overt subject in English (e.g. He likes Christmas) and the non-realization of an overt subject in Kurdish (e.g. *hazi le Krismise*) seems soundly to be phonological because the same meaning (proposition) is conveyed with or without an overt subject in the sentence. In addition, whether an overt subject is present or not, there must obviously be a subject (syntactically and semantically). Thus, what is overt or covert about it is phonological rather than syntactic or anything else. Since overt subjects are always required in English independent clauses even if a semantically doer or subject of the action is not required (e.g. It is raining), it is thus something uninterpretable at the conceptual-intentional system (CI) (or LF) but rather a mere phonological phenomenon (only interpretable at PF).

It is worth noting that not all syntactic expressions have both phonological and semantic properties. Empty ('Null') categories such as big PRO and little *pro* (Chomsky, 1981 among others) have semantic but not phonological properties. On the other hand, expletive *it* and *there* and complementizer *that* have phonological but no semantic properties. It is important, though, that within Chomskyan generative grammar there is no syntactic expression which lacks both phonology and

semantics. Logically, there should be no syntactic expression of such a kind because the category and/or structure of an expression that lacked both phonology and semantics would not be the category or structure of anything. Such a 'purely syntactic' expression would be completely ungrounded and have no interpretable content (Burton-Roberts, 2011).

Yet another kind of imperfection and thus variation among the languages is related to Case Theory. On the basis of the theory, case is a universal abstract feature of noun phrases in which every NP must be assigned an abstract case. This indicates that case has two features. First, it is universal because it is supposed to be found in all languages; that is, all languages are said to be case languages. Second, because case is abstract, it is not required to be realized morphologically (and phonologically). Another kind of case is structural or inherent in which the NP has to be realized morphologically. As Chomsky (2002) explains, inherent cases are in fact not an imperfection since they are semantically associated; that is, they are making a semantic relation the interpreter has to know about. An example of such inherent case is plurality on nouns. However, structural cases can be seen as an imperfection. Why do languages have such structural cases (nominative, accusative, etc.) if they are not interpreted by conceptual-intentional system? Whether such case is a conceptually necessary theory seems doubtful since some languages (such as Kurdish) can be explained without reference to such cases. Where in English it is necessary to assign structural cases to nouns or pronouns in order to know their relations, in Central Kurdish it is absolutely unnecessary. What is conveyed differently in English by 'he' and 'him' is conveyed by the same pronoun 'ew' in Central Kurdish (especially the Sulaimani variety) regardless of its position or structural relation in the sentence. Different structural cases are 'uninterpretable features' at the conceptual-intentional system (or LF); they are only interpretable at the articulatory-perceptual system (or PF). Hence, it seems that case assignment in languages is a variation that can simply be regarded as a phonological feature rather than syntactic.

There are other parametric variations which can also be regarded as phonological rather than syntactic. In fact, it seems that anything that is not interpretable at the thought system, anything that produces variation and is a source of imperfection can be regarded as phonological. Then, the question that remains is how does considering imperfections and variations as phonological help in achieving a 'perfect' system of language? This will be the focus of the next section.

IV. IMPERFECTION AND PHONOLOGY

If the object of linguistic theory, according to Minimalism, is a single, invariant, natural perfect system of language, how is then such perfection possible in the light of the imperfections? Put it another way, why does language have such imperfections? Is it because of the faculty of language (FL) itself or is it because of its theory and how we see it? Chomsky (2002) identifies lack of interpretation at LF as the ultimate/basic form of imperfection. And, this means that all

phonology is an imperfection since nothing phonological is interpretable at LF. This is also a reason that, according to recent Chomskyan generative grammar (Chomsky 1995; Chomsky 2000), there is the splitting operation Spell-Out. Hence, the need for Spell-Out is an imperfection. In order to somehow reduce the imperfections, Chomsky downplays the role of phonology and PF level in the language computation system. He actually perceives it as 'periphery' and as being excluded from the 'core system of language'.

Ironically, although Chomsky in the Minimalist Program (see, for example, Chomsky (2006)) wants to remove the imperfections and hence the tension between the explanatory and descriptive adequacy, this will not be possible unless the assumption of the double-interface conception of language is not resolved. In other words, shifting variations and imperfections out into phonology does not seem to solve the problems if the double-interface assumption and 'language as sound with a meaning' are conceived the way they are. (see also Jackendoff and Pinker (2005); Hauser *et al.* (2002) for a different approach to resolving such problems). The actual problem starts with the double-interface assumption in that FL serves the two interfaces of PF and LF and that syntactic expressions are grounded in a double-interface formula of phonological and semantic properties. This means linguistic expressions, at least in the overwhelming majority of cases (the exception, among others, being null 'empty' categories which have semantic but no phonological properties) have both phonological and semantic features. As Burton-Roberts (2011) explains, Chomskyan double-interface assumption faces some serious problems. In the first place, the part-part relation of phonological and semantic properties to create syntactic objects is in fact adopting Saussure's mereological idea, which makes it impossible given the sortal distinction between phonological and semantic properties (Burton-Roberts, 2011). That is, the sortal basis of Saussurean arbitrariness cannot possibly form syntactic expressions. Such double-interface conception of linguistic computation cannot simply allow the existence or creation of syntactic words because what is interpretable at PF cannot be interpreted at LF and vice versa. Secondly, on the double-interface assumption, phonology is included in the faculty of language. Phonology is seen as the 'realization' or 'externalization' of expressions generated by the computation system. This realizational view of phonology results in viewing language as having 'sensory output' and that speech is 'the natural output of language' (Burton-Roberts, 2012). Hence, the conception of language as natural, invariant, and internal has to change. In fact, the concept of language seems to obtain a generic interpretation since phonology can only be seen in the particular languages. In addition, including phonology within FL allows for the admission of imperfections in the conception of language (hence the tension between explanatory and descriptive adequacy remains).

Sigurðsson (2004: 241) argues that 'language has innate structures that have meanings irrespective of whether or how they are expressed in Perceptible Form' and that '...we need to acknowledge that, in spite of being an extremely sophisticated motor system, the Phonological or Perceptible Form of oral

languages is not part of Universal Grammar'. And, this suggests a view of the computation somewhat in the spirit of Fodor's 'Language of Thought' (LOT) (e.g. 1975, 2008). Fodor (2008) considers the syntax of LOT as being quite different from syntax as conceived of in Chomskyan generative grammar, which somehow postulates that it is made phonology-free. In fact, LOT has a pre-eminent claim to be a generative computation that is natural, innate, and invariant across the species, and thus a claim to be the human generative computation. All these characteristics are also characteristics of the human FL (see Hinzen 2006; 2011 for further understanding of FL). By hypothesis, FL is the invariant, uniform, natural, innate, generative, human computation. Hence, it is quite possible, as explained below, to claim that Chomsky's 'faculty of language' is not that distinct from the language of thought itself.

Accordingly, to resolve these problems it is necessary to perceive the FL differently and reject the double-interface assumption. To begin with, it is necessary, in the sense of Sigurðsson's (2004) and Burton-Roberts' (2011) arguments, to equalize FL with the Language of Thought (LOT). Although it seems that Chomsky (2006) wants to identify FL as LOT, as long as he is committed to the idea of 'language as sound with a meaning' and in turn to the double-interface assumption of language, this identification seems impossible. As a system of thought, LOT has properties which make it different from Chomskyan understanding of FL and yet more importantly make it perfect. An important property of LOT is that it has nothing uninterpretable as conceptual-intentional system since it is the system itself. In addition, as it has no phonology (the source of all imperfections), it must then have all the properties that make it perfect. This implies that the FL or language computation should be stripped of phonology. As LOT is conceived of a computation of only syntactic and semantic properties, FL should also be conceived as such. Consequently, the exclusion of phonology from the FL essentially implies purging the FL from all the variation and imperfections. However, the ultimate questions that remain are basically related to the nature and place of phonology and the relation between the particular languages and the 'one perfect' human language.

The Representational Hypothesis (Burton-Roberts 2000; 2011) provides answers to such questions. Unlike the realizational view of phonology, the hypothesis claims that speech sounds are not conversions or productions generated by the system (linguistic expressions). Rather, speech sounds are principally 'symbolic signs' that are in a 'representational relation to language', emphasizing the fact that 'language' is conceived as being exclusively a 'syntactic-semantic (phonology-free) system'. Humans do not produce/hear linguistic expressions generated by the language system. They only produce/hear random and conventional sounds that are intended to 'represent' the internal linguistic expressions. In this view, phonology is seen as a representation of linguistic expressions, and this is why it is necessary to exclude phonology from the system. The place of phonology lies only in the particular languages of the world, not intrinsic to the

language computation (Burton-Roberts, Carr, & Docherty 2000). The existence of the many particular languages is due to the fact that humans use different conventional speech sounds to represent the one internal language. This also means that particular languages (different morpho-phonological systems) stand in a representational relation to the 'one' language. Therefore, the variations and the many imperfections are not due to the one 'perfect' language but rather to the many morpho-phonological systems that are out there.

CONCLUSION

Conceiving language as a single, natural, universal, and invariant and keeping the double-interface assumption of the language computation are not enough if the objective of linguistic theory is to seek a perfect system and to minimize the variations within and across the languages of the world. The single 'one' human language should be seen as a system of thought having only syntactic and semantic properties. Such a language and the innate concepts it has is represented through the various morpho-phonological systems of the many particular languages of the world. Such conventional morpho-phonological systems should not be considered as part of the generative language computation since they are the source of imperfections and variation among the languages. They are, nonetheless, absolutely central in that they provide humans with crucial access to thought and innate concepts.

REFERENCES

- Anderson, S. (1981). Why phonology isn't natural. *Linguistic Inquiry* 12, 493–553.
- Berwick, R., and N. Chomsky. (2008). The biolinguistic program: the current state of its evolution and development. Ms. To appear in: di Sciullo, A.-M., Aguero-Bautista, C. (Eds.), *Biolinguistic Investigations*. MIT Press, Cambridge, MA.
- Bloomfield, L. (1926). A set of postulates for the science of language. *Language* 2, 153-164.
- Burton-Roberts, N. (2000). 'Where and what is phonology? A representational perspective' in Burton-Roberts, N., et al. (eds.) *Phonological Knowledge*. Oxford University Press: Oxford. 39-66.
- Burton-Roberts, N., and P. Carr. (1999). On speech and natural language. *Language Sciences* 21, 371-406.
- Burton-Roberts, N., Carr, P. & Docherty, D. (Eds.) (2000). *Phonological Knowledge: conceptual and empirical issues*. Oxford: Oxford University Press.
- Burton-Roberts, N. (2011). 'On the grounding of syntax and the role of phonology in human cognition' in *Lingua* 121 (14).
- Burton-Roberts, N. (2012). Language and languages: realist/naturalist 'Language'. Grammar, language, and mind (unpublished lecture), Newcastle University.
- Chomsky, N. (1965). *Aspects of the theory of syntax*. Cambridge, Mass.: MIT Press.

- Chomsky, N. (1972). *Language and mind*. Enlarged ed. New York: Harcourt Brace Jovanovich.
- Chomsky, N. (1975). *Reflections on language*. New York: Pantheon Books.
- Chomsky, N. (1981). *Lectures on government and binding*. Foris, Dordrecht.
- Chomsky, N., (1986). *Knowledge of language*. Praeger, New York.
- Chomsky, N., (1991). Linguistics and cognitive science: problems and mysteries. In: Kasher, A. (Ed.), *The Chomskyan Turn*. Basil Blackwell, Oxford, pp. 26–53.
- Chomsky, N. (1995a). Language and nature. *Mind* 104: 1-61.
- Chomsky, N. (1995b). *The minimalist program*. Cambridge, Mass.: MIT Press.
- Chomsky, N. (2000). *The architecture of language*. Oxford University Press, Oxford/New Delhi.
- Chomsky, N. (2002). *On nature and language*. Cambridge: Cambridge University Press.
- Chomsky, N. (2006). Approaching UG from below. Ms, MIT. Appeared (2007). In: Sauerland, U., Gartner, H-M. (Eds.), *Chomsky's Minimalism and the View from Syntax-Semantics*. Mouton de Gruyter, Berlin/New York, pp. 1–29.
- Fodor, J. (1975). *The language of thought*. Crowell, New York.
- Fodor, J. (2008). *LOT2*. Oxford University Press, Oxford.
- Hauser, M., Chomsky, N., & Fitch, W. (2002). The faculty of language: what is it, who has it and how did it evolve? *Science* 298 (5598), 1569–1579.
- Hinzen, W. (2006). *Mind design and minimal syntax*. Oxford University Press, Oxford.
- Hinzen, W. (2011). Language and thought. In: Boeckx, C. (Ed.), *The Oxford handbook of linguistic minimalism*. Oxford University Press, Oxford.
- Jackendoff, R. & Pinker, S. (2005). The faculty of language: what's special about it? *Cognition* 95, 201–236.
- Kareem, R. (2016). *The syntax of verbal inflection in Central Kurdish* (PhD thesis), Newcastle University.
- Öpengin, E. (2013). *Clitic-affix interactions: A corpus-based study of person marking in the Mukri variety of Central Kurdish*. (PhD thesis), Université Sorbonne Nouvelle and Universität Bamberg.
- Sigurðsson, H. (2004). Meaningful silence, meaningless sounds. *Linguistic Variation Handbook* 4 (1), 235–259.
- Tahir, R. (2018). *The structure of DP in Central Kurdish* (PhD thesis), Newcastle University.