Research Proposal

The Validity of Reconstruction Systems

A Comparative Investigation of Linguistic Reconstruction in the Field of Indo-European and Sino-Tibetan

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1. Introduction

Can "validity" be claimed for reconstruction systems in historical linguistics? Is it possible to say that one proto-form is more valid than another? Is it justified to state that the reconstruction system of one proto-language reflects this proto-language with a greater certainty than that of another one? Most of the linguists engaged in linguistic reconstruction would probably confirm that it is possible to make such statements, since the whole "reconstructive undertaking" is characterised by replacing or modifying old proposals, i.e. by claiming that the old solutions are "less valid" than the new ones. Therefore it doesn't seem unjustified to even expand the scope of application to different proto-languages and to claim that one reconstruction system is less valid than another one.

While such general statements are easily made and seem to be quite reasonable, it is much more complicated to make them explicit. Thus, every linguist would subscribe to the claim that Nostratic *apV {father} (The Tower of Babel: Nostratic Etymology) is less certain than Proto-Indo-European * $ph_2t\acute{e}rs$ {father} (Meier-Brügger 2002), since the former is derived from the latter. But what about proto-forms like Old Chinese $c\check{a}i \not \times s^{-h}rre$? {gather, pluck}(Baxter & Sagart)? Is it possible to compare its "validity" to that of PIE *kerp- {gather, pluck} (Meiser 1998: 191)? Judging from their surface appearance, the two forms do not look quite different, yet if one takes a look at their "reconstruction history", the picture changes somewhat:

k	e	r	p	Proto-Form		^h rr	ə	?
x	X	X	X	external reconstruction				X
	(x)			internal reconstruction	X	X		
				"philological" methods			X	X
X	X	X	X	continued in at least one language				X

1: Comparison of Proto-Indo-European and Old Chinese Proto-Forms

While the Indo-European forms are entirely based on external reconstruction (*-e- is reflected in Lithuanian kerpù {cut}, cf. Meiser 1998: 191), the Old Chinese proto-form, apart from the glottal stop which might be reflected in some modern Chinese dialects (cf. Mei 1970), can only be claimed by means of "philological" and internal reconstruction, the latter being based on the "word family hypothesis" (cf. Sagart 1999: 1-4). As a consequence, the judgments of different linguists for the Old Chinese proto-form vary significantly regarding segmentation and implementation with concrete phonological values:

¹ "Philological reconstruction" refers to the special methods of text and grapheme analysis which are usually employed for the reconstruction of Old Chinese (the term is adopted from Jarzewa 1999: 409).

Researcher	Proto-Form	Segmentation							
		PI	I	M	N	C	PC	T	
Starostin (1989)	*s ^h ə:?		s^h		ə:		?		
Yáng (2004)	*tshəg		ts ^h		э	g		shăng	
Zhèngzhāng (2003)	*shu:?		s ^h		u:		?		
Baxter/Sagart (?)	*s- ^h rrə?	S	^h rr		э		?		

2: Different Proposals for the Old Chinese Pronunciation of căi ₮ {gather, pluck}²

When accepting the assumption that it is possible to compare reconstruction systems of different proto-languages regarding validity, one could conclude that the Old Chinese protoform is less valid than the Indo-European one.

But what is this judgment based on? Is the difference in reconstruction methods sufficient to prove that the two proto-forms' validity is not the same, or is it still just a rather "intuitive feeling" that one of them is "more certain" than the other? And if one agrees with the claim that the results of linguistic reconstruction show varying degrees of validity, what are the reasons for these differences? Which are the factors that influence the validity of reconstruction systems? These are in short the questions I want to investigate within the project which I propose here.

2. Goal of the Project

The goal of the project is to investigate the conception of "validity" in linguistic reconstruction by comparing selected issues in historical-comparative linguistics in general, and in Chinese and Indo-European linguistics in particular. Although the validity of reconstruction systems is one of the key questions in historical-comparative linguistics, there is no explicit notion of the concept. It is rather reflected implicitly in some methodological discussions and in the reconstruction practice of different linguists. In order to "explicate the implicit" I intend to approach the concept both theoretically and practically: The theoretical approach will focus on important issues of reconstruction methodology which refer to different aspects of "validity" (e.g. the question about the "nature of the proto-language", the formalist-realist-debate, the role of language typology), while the practical approach implies a comparative examination of some of the main problems which the linguists face when reconstructing Indo-European and Old Chinese (resp. Sino-Tibetan).

3. Aspects of Validity

In the following, I shall briefly list some of my main ideas regarding the concept of validity. These ideas are not intended to state a result, but shall rather give some short insights into the basic assumptions that led to the formulation of this research proposal.

² The abbreviations for the segmentation follow Baxter (1992): PI=Preinitial, I=Initial, M=Medial, N=Nucleus, C=Coda, PC=Postcoda, T=Tone. The notational conventions of some of the reconstructions have been slightly modified, in order to facilitate the comparison. The double-spelling of <r>
in the reconstruction of Baxter/Sagart is a notational convention for a distinction in the Old Chinese syllable structure, which can be divided in two different sets of syllables (cf. Pulleyblank 1973). I have retained this notation in order to show that Baxter/Sagart do not follow the length-distinction of Zhèngzhāng (2003) and Starostin (1989).

3.1. Validity in the Social Sciences

In scientific test theory (especially in psychology and sociology) "validity" (apart from "objectivity" and "reliability") is one of the three control criteria for scientific experiments. The term describes '[...] how well each item of a [...] test measures or predicts what it's supposed to measure or predict' (Statt 1998 [1981]: 30). In a more theoretical notion it refers to the "strength" of theories and hypotheses (cf. Liebert/Liebert 1995 [1973]: 100-119). Although validity is sometimes regarded as an absolute value, it is important to note that the concept is gradual in its nature (otherwise one would have to conclude that a fast watch could not measure time at all). This is in concordance with the common truth theories in philosophy, which likewise do not claim absolute truth as a practicable goal of scientific research (cf. Zoglauer 2002: 27-32). If one subscribes to this gradual notion of validity, one can conclude that validity designates a theory's "closeness" to reality, i.e. the degree to which a theory reflects a certain reality. Validity in this sense can be seen as the relation between two sets, one comprising a theory, the other a "reality".

3.2. Validity in Linguistic Reconstruction

In linguistic reconstruction "reality" and "theory" are represented by the proto-language (as an "ontological reality") and the reconstruction system. The reconstruction system is a theory about a language that is believed to have existed once. Thus, validity in linguistic reconstruction may be defined as the relation between proto-language and reconstruction system. This relation, however, is difficult to establish: since the proto-language is only accessible through the reconstruction system, the power of the reconstruction system to reflect the proto-language cannot be checked against it⁴. As a result, the two sets show some degree of mutual dependency: changes in the reconstruction system change the linguists' image of the proto-language; changes in the notion of proto-language may likewise lead to a different interpretation of the reconstruction system⁵.

3.3. Dimensions of Validity

Three dimensions in which the concept of validity is important can be distinguished: a historical dimension, a system-internal dimension and a system-external dimension. These dimensions are not mutually exclusive, but rather make an emphasis on different aspects of validity in linguistic reconstruction.

In the historical dimension validity refers to the different reconstruction systems of one and the same language during the history of investigation. Thus, linguists usually agree that the current PIE reconstruction system is more valid than that of Brugmann, which itself is more

2

³ The term "reality" is used in a broad sense here. It includes both categories which pertain to "social reality" (Searle 1995) and categories of natural sciences.

⁴ This problem is not limited to linguistic reconstruction but can also be found in other scientific fields, e.g. in psychological intelligence tests: the concept of intelligence is given ontological status, although it is only accessible by tests. The question whether there "is" something like intelligence cannot be answered a priori.

⁵ This can be exemplified by Schmidt's proposal of the "Wellentheorie" (Schmidt 1872): The inconsistencies in the PIE reconstruction system prompted him to reject Schleicher's "Stammbaum" (Schleicher 1866), but likewise made it possible to accept variations arrived at by linguistic reconstruction as a result of dialectal variation in the proto-language (cf. the explanation for the *-m- *-bh- alternation in PIE in Bloomfield 1933: 314f).

valid than that of Schleicher. From a historical point of view the validity of the reconstruction system has increased: one usually believes that the new proposal is closer to the reality of the proto-language than its predecessors.

In the system-internal dimension different proto-forms or proto-segments of a reconstruction system are compared regarding their validity. Reconstruction systems usually include some elements that are more controversial than others (the same holds for the protoforms). From a system-internal point of view the various elements of a reconstruction system (words, phonemes etc.) show varying degrees of validity.

In the system-external dimension the reconstruction systems of different proto-languages are contrasted with each other. Thus, one could say that Proto-Slavic is more valid than Proto-Indo-European (cf. Neroznak 1988: 26) and Proto-Indo-European is more valid than Proto-Sino-Tibetan, while the scholars of the Altaic languages are even uncertain whether a Proto-Altaic language existed at all (cf. the sceptical view of Georg 2004 regarding Starostin's reconstruction of Proto-Altaic). From a system-external perspective it is therefore also possible to observe varying degrees of validity.

4. Importance of the Study

4.1. Objectification of the Comparative Method

In a recent work on quantitative methods in historical linguistics McMahon & McMahon (2005) opt for a broader use of quantitative models in the genetic classification of languages. This is due to the fact that the traditional classification of languages within the framework of the comparative method shows a certain lack of objectivity in terms of 'repeatability' of its results, i.e. it is not always clear, whether the common results would be always the same, even if they are based on the same data (cf. McMahon & McMahon 2005: 26f). These methods, however, are not intended to replace the work of linguists within in the paradigm of the comparative method (which is accepted by a broad range of scholars and partially validated by its successful application especially in the Indo-European language branch), but to provide the method with some more objective criteria for evaluation. According to McMahon and McMahon, quantitative methods can be helpful to validate the results of historical linguistics and serve as a heuristic for further research.

The concept of validity can also be helpful to objectify the comparative method. Yet it is not primarily based on statistical analyses but rather intends to state more explicitly what the comparative method is based on implicitly.

4.2. Explication of the Implicit

Many researchers who are concerned with linguistic reconstruction agree that the traditional comparative method is still a rather ,,intuitive undertaking". Schwink (1994: 29) notes:

Part of the process of "becoming" a competent Indo-Europeanist has always been recognized as coming to grasp "intuitively" concepts and types of changes in language so as to be able to pick and choose between alternative explanations for the history and development of specific features of the reconstructed language and its offspring.

From my own experience I know that the situation up to today has not changed significantly. The question is whether this is due to the topic of research, i.e. that it is simply not possible to

establish more objective criteria for the evaluation of reconstruction systems, or whether the reasons for this lack of objectivity can be found somewhere else. I am convinced of the latter.

Decisions which are made intuitively are based on implicit knowledge which has been accumulated in the course of research practice. Implicit knowledge 'can contain the integration of much more information than one would be able to handle explicitly and thus provides a valuable resource for judgment and decision making' (Plessner & Czenna 2008: 257f). This leads to a particular strength of decisions based on implicit knowledge, which can be often observed, especially when comparing their results with computerized decisions which are based on a fixed set of features⁶.

However, decisions that are solely based on implicit knowledge also show various weaknesses:

Implicit knowledge does not contain information about how representative the prior experiences are because it is blind to the constraints that are inherent in the sampling processes that underlie its formation. (Plessner & Czenna 2008: 258)

Since for the outsider intuitive decisions are not easy to comprehend, it is much more difficult to check them for erroneous assumptions or to generalize them. Kortlandt (1993) lists several cases where general assumptions about "the nature of language" turned out to constrain research in the field of historical linguistics. Linguists orientate their judgements on what they consider to be "natural" for language in general: 'As a result, our reconstructions tend to have a strong bias toward the average language type known to the investigator' (ibid.: 9). These assumptions can serve (and often served) as a useful heuristic device but since they may also constrain the research in the field of historical linguistics, their application has to be guided by a methodological framework.

A more exact investigation of the factors which affect the validity of reconstruction systems can help to give the implicit concepts a more explicit notion and lead to more reflection about the methods that are applied in historical linguistics. In a further step it might facilitate the application of quantitative methods in linguistic reconstruction, whose most obvious shortcoming is still a low degree of validity, because they often do not measure what one wants to measure (cf. e.g. the arguments against the "universal constant hypothesis" of lexicostatistics in Blust 2000).

4.3. Validity as a Compromise Solution of the Abstractionist-Realist Debate

Ever since Schleicher proposed the first proto-forms for PIE, there has been great disagreement among scholars how to interpret the reconstruction systems. In Schleicher's language theory, which compared languages with organisms (cf. Durie & Ross 1996: 14), the quality of the proto-language was clear-cut and concrete. It represented the highest level of development of PIE in its 'vorhistorischer Periode', which in its 'historischer Periode' had gradually disintegrated into the various Indo-European languages (cf. Schleicher 1866: 4). This concrete view of the proto-language certainly gave reasons for Schleicher's realism, leading to the composition of his famous fable. Later on, scholars exhibited a more critical attitude towards the reconstruction systems, emphasizing their abstract character. Schmidt's "Wellentheorie" can be understood as a reaction to Schleicher's realism, revealing the proto-

5

⁶ This problem pertains to other branches of linguistics as well (cf. Kempgen 1981's problematic classification of the parts of speech in Russian; based on numeric taxonomy, I attached my discussion of Kempgen's proposal in a seminal paper from 2005). Lorenz (1969: 38) notes similar problems in the field of biology.

language as a 'wissenschaftliche fiction' (Schmidt 1872: 31). The "Wellentheorie", however, raised new problems for linguistic reconstruction, since the proto-language was now deprived of its "uniform character" and the question what the reconstruction systems actually represent had to be evaluated again. This can be seen in Brugmann's scepticism that the reconstruction systems could ever reflect a linguistic reality (cf. Brugmann & Delbrück 1904 [1970]: 25), and even more in Saussures work, who completely rejected a positive specification of the sound values of reconstruction systems (cf. Saussure 1969 [1913]: 303).

The question about the nature of the proto-language, the reconstruction systems, and their relationship remained unsolved, leading to various proposals in favour of the realists or the abstractionists. Hall's reconstruction of Proto-Romance, which was actually testable against an attested proto-language, could not convince all scholars, 'that the degree of realism attained is reasonably high' (Hall 1960: 204). This became obvious in the discussion that was induced by the glottalic theory. While the supporters of the theory based their claims on a realistic conception of the reconstruction systems (cf. e.g. Salmons 1993: 69f), the opponents took a rather abstract position (cf. e.g. Schrodt 1989: 147, who suggested to replace the phonetic differentiation within the PIE plosive series by index numbers).

The concept of validity takes an intermediary role between these two extreme positions. The question about the reality of reconstruction systems is no longer stated absolutely, but gradually in terms of "closeness to reality". Obviously, absolute reality is not a realistic goal for linguistic reconstruction, but likewise it is not appropriate to reject every relationship between the reconstruction system and the proto-language, claiming that it is just 'a set of reconstructed formulae not representative of any reality' (Pulgram 1959:424)⁷.

5. Research Strategy

As mentioned above, the investigation shall be based on a detailed discussion of representative issues in historical linguistics which are related to the validity of reconstruction systems in the one or the other aspect, and on a comparison of concrete problems which scholars face in the field of Indo-European and Sino-Tibetan reconstruction. In the following I shall briefly list some of the questions which I intend to investigate in more detail.

5.1. Theoretical Considerations

In §3. I have outlined some main assumptions about the concept of validity, which do not have to be repeated here. It should, however, be noted that these general assumptions have to be refined during the project. Thus, the linguistic and non-linguistic literature has to be checked for concepts of validity that might give reasons to reject or to confirm the preliminary one given above. Once a convincing definition of the concept is established, the main concern of the theoretical part will be to identify the factors that influence the validity of reconstruction systems. In a further step it shall be investigated whether it is possible to weight the factors according to the degree to which they influence the validity of reconstruction systems.

Regarding the factors, the preliminary definition of validity as the relation between the reconstruction system and the proto-language (see §3.2.) can serve as a first heuristic: main

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⁷ This view is partially reflected in Kormišin (1988: 92), who notes: 'Следовательно, положение, синтетизирующие тезис "реализма" и антитезис "конструктизма", сводится к тому, что $\Pi \mathbf{\Pi}$ – абсолютная реальность как онтологическая данность, тогда как его гносеологическая реальность относительна'.

factors can be found in both the process of reconstruction and the conception of the protolanguage. However, to investigate these two sets separately might oversimplify the situation somewhat. The whole enterprise of linguistic reconstruction is not based on the computerized application of general laws to a single set of data, but by linguists who know the languages they investigate extremely well and make broad use of their implicit knowledge when adopting or rejecting certain hypotheses (see §4.2.). Thus, the process of decision-making in linguistic reconstruction has to be given specific attention. This might also help to distinguish language-dependent and language-independent factors, since a correlation of languagedependent factors and the process of decision-making seems quite probable.

5.1.1. How Does the Process of Reconstruction Influence Validity?

The starting point of linguistic reconstruction is a set of attested languages (or at least one attested language) which is systematically compared. The comparison is based on special methods of reconstruction, e.g. external, internal and philological reconstruction. The application of the methods results in a reconstruction system of an unattested language stage. Thus, factors that influence the validity of the reconstruction system can be found in both the languages that are included in the comparison and the methods that are applied.

In scientific test theory there is an implication-relationship between the two control criteria reliability and validity: the former implies the latter. Reliability '[...] refers to the degree to which a particular observation has yielded a replicable score' (Liebert/Liebert 1995). Thus, reliability in linguistic reconstruction is related to the reconstruction methods. In the literature it is often observed that the respective methods of linguistic reconstruction are of different reliability. Ringe (2003: 244), for example, notes that external reconstruction '[...] is so much more reliable that it is preferred whenever possible'. This suggests that the assumption concerning the validity of the OC and PIE proto-forms for {gather, pluck}(see §1.) is justified, since the reconstruction history of the two forms mainly differs in this aspect. Yet the situation gets a bit trickier, if one takes the observation of Fox (1995: 211f) and Klimov (1990: 98) into consideration, who note that external reconstruction leads to more complexity in the phoneme inventory, while internal reconstruction causes the opposite. As a reason, Fox states the different "ability" of the methods to detect splits and mergers. This would suggest that a valid reconstruction has to make use of both methods whenever this is possible. Thus, the reliability of the reconstruction methods is not only a matter of "more or less reliable", but has also a qualitative dimension. It will be an important task for the project to explore it in detail.

The languages as a factor of validity are an even more complicated issue. Language data and language structure have a deep impact on linguistic reconstruction. Although Meillet's remark that the reconstruction of languages that lack paradigm morphology 'se heurte à des obstacles quasi invincibles' (Meillet 1925: 26) does not seem to hold any longer, it is true that the linguists engaged in reconstruction of isolating languages face problems that are completely unknown to the Indo-Europeanist. Language data are another serious challenge. Dempwolff's first reconstruction of Proto-Austronesian for example was almost entirely based on three languages which he considered to be most indicative (cf. Grace 1990: 155f). The fact that there are languages which are "more conservative" and languages which are "more innovative" is well-known to Indo-Europeanists, too. Yet the problem is to decide which languages are the most "valid" ones for linguistic reconstruction. A third problem which belongs to the complex "languages as a factor of validity" is the sociolinguistic situation. Contact induced change, areal diffusion, and peoples' special attitude towards

language (e.g. the problem of taboo, cf. Dixon 1990: 397) all can provoke serious problems for linguistic reconstruction. These issues are of great importance when judging the validity of reconstruction systems.

5.1.2. How Does the Conception of the Proto-Language Influence Validity?

In my opinion, there are two aspects of the conception of the proto-language that mainly influence the validity of reconstruction systems: The proof of genetic relationship and considerations about the "nature of the proto-language".

The ontological status of the proto-language is important for linguistic reconstruction. Otherwise, the reconstruction system really would be a pure fiction. The opinions about the proof of language relationship, however, differ quite significantly among scholars. This is due to the fact that the claim that genetically related languages have to show 'a stronger affinity [...] than could possibly have been produced by accident' (Jones 1967 [1786]) can be interpreted in various ways. The assumption that regular sound correspondences are proof for genetic relationship (cf. e.g. Lass 1997: 129f) has been partially rejected by Nichols, who sees 'individual-identifying evidence', i.e. '[...] evidence that identifies a unique individual protolanguage' (Nichols 1996: 48), as even more important. This evidence '[...] is primarily grammatical and includes morphological material with complex paradigmatic and syntagmatic organization' (ibid. 41). In contrast, Wang (1997: 525) notes:

Since there is no trait that cannot be borrowed, we have no single litmus test for genetic relationships among languages. The question, rather, is one of probabilities and likelihoods.

This view, however, might be a bit exaggerated. While it is true that borrowing is not limited to the lexicon (cf. Thomason 2001: 63), shared morphological paradigms are still a far more valid evidence for linguistic relationship and less likely to be fully borrowed. The identification of a unique proto-language is still the basis for every reconstruction. The question how language relationship can be proven for isolating languages remains, however, a particular challenge for historical linguistics and has to be discussed in the project, especially in the comparative part (see §5.2.2 below).

It has been mentioned in §3.2. and §4.2. that the conception about the "nature of the proto-language" can have an influence on the reconstruction practice. Thus, Jakobson's famous statement that a '[...] conflict between the reconstructed state of a language and the general laws which typology discovers makes the reconstruction questionable' (Jakobson 1958: 23) presupposes that the reconstruction practice can identify a unique proto-language and that the realism that can be achieved is high enough to go into linguistic detail.

The uniformitarian hypothesis (cf. Croft 1990: 204), however, does not resolve all problems of linguistic reconstruction. By assuming that a proto-language "is just another language" it remains open what kind of "another language" the proto-language comprises. At first, it has to be mentioned that modern linguistic theory and language typology is still far away from being able to judge what a natural language has to be like. Furthermore, the uniformitarian hypothesis does not only imply that the proto-language has to behave like a natural language in terms of phonetics, but also in sociolinguistic terms. If one accepts the *Sprachbund* as a linguistic reality, one likewise cannot exclude it as a possibility for the structure of the proto-language.

5.1.3. The Process of Decision-Making in Linguistic Reconstruction

The first control criterion of scientific test theory is objectivity. The objectivity of a test '[...] kennzeichnet die Unabhängigkeit seines Ergebnisses von der Person, die den Test durchführt' (Maderthaner 2008: 89). Objectivity is the first element in the implication chain of scientific test theory's control criteria. Objectivity implies reliability, and reliability implies validity (ibid. 90). In §4.2. it was mentioned that implicit knowledge still plays a rather important role in linguistic reconstruction. Therefore, its impact on the validity of the results of linguistic reconstruction is of crucial importance.

The reasons why linguists reject or accept a certain proposal are various and can be found in all the factors mentioned above. Kortlandt (1993: 11f), for example, makes the assumption that Curtius' rejection of Brugmann's *nasalis sonans* might have been due to the influence of the Latin alphabet, which masks the existence of a syllabic nasal in languages like German and English. In this case it is the conception about the nature of the proto-languages which biases a certain decision.

Since the process of decision making mostly involves concrete decisions, this complex has to be given special attention in the comparative part of the project.

5.2. Comparison of Selected Issues in Indo-European and Sino-Tibetan

In the following, I shall list briefly some representative issues in Chinese historical linguistics whose discussion and comparison with the reconstruction of Proto-Indo-European might help to shed light on the questions raised above. Since the reconstruction of Indo-European and Sino-Tibetan differs in many of the factors that I assume to influence the validity of reconstruction systems, their comparison seems to be quite significant for an exploration of the concept.

5.2.1. Middle Chinese: Network or Stammbaum?

The question about the "nature" of the language that is called "Middle Chinese" in Chinese linguistics has been occupying scholars for a long time. Karlgren's original assumption that the rhyme books and rhyme tables reflect a *koine* in Tang times (cf. Karlgren 1954: 212) has been criticized by various scholars (cf. e.g. Norman & Coblin 1995; Branner 2006). It is now usually accepted that the rhyme books and rhyme tables do not mirror a real language but rather a "diasystem" (cf. Newman 1996: 93), 'based mainly on reading pronunciations from different traditions, not all of the same time period' (Branner 2000: 43). If one rejects the possibility of a koine in Tang times, the image of "Middle Chinese" as a proto-language changes crucially. The proto-language is no longer a uniform system, but a "bunch" of dialects which are connected by the use of the same writing system.

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⁸ It is usually emphasized that Middle Chinese is not reconstructed by means of the comparative method. In fact, there are some distinctions made in the rhyme books that are not reflected in any of the modern Chinese dialects (cf. Norman 2006 for a comparison of "externally reconstructed Middle Chinese" and "traditional Middle Chinese"). However, this doesn't mean that a system arrived at by external comparison is automatically more realistic than the traditional one. If there was no *koine* in Tang times, no uniform reconstruction system can give a realistic picture of "Middle Chinese".

⁹ This view seems to find some support in a recent study of Hamed (2005), who argues that in contrast to the Indo-European languages the traditional *Stammbaum* is not appropriate to reflect the development of the Chinese dialects and that network models give a more realistic picture of the Chinese past.

But what does the MC reconstruction system reflect then? Although, obviously, it does not represent a linguistic reality in the traditional sense, the significance of "Middle Chinese" for the reconstruction of Old Chinese seems to suggest that it is still a "valid" system in some respects. Yet the question is: In what respects is the system valid? Can a reconstruction system that reflects a proto-language which is a "fiction" be valid at all?

5.2.2. Sino-Tibetan: How to Identify the Proto-Language?

Although the Sino-Tibetan hypothesis can be traced back to the middle of the 19th century (cf. Gassmann & Behr 2005: 404f), it was only recently that it gained broad acceptance. This was especially due to the fact that the reconstruction of Old Chinese improved significantly, with the effect that '[...] the "new" Old Chinese turned out to look rather like just another Tibeto-Burman language' (Van Driem 1997: 461). However, the reconstruction of Proto-Sino-Tibetan still remains a rather frustrating undertaking. Although some sound correspondences and several cognates have been established, and even morphological suffixes could be identified, the "picture" of the proto-language underlying the Tibeto-Burman and the Sinitic languages is still a rather fuzzy one. Individual-identifying evidence (see §5.1.2.), which might be based on shared word families, is rather sparse. Additionally, the subgrouping of the Sinitic languages within the Sino-Tibetan language family is still a controversial issue (cf. Gassmann & Behr 2005 406f).

The Sino-Tibetan problem shows how important the identification of a unique protolanguage is for linguistic reconstruction, and how deep language structure and language data can influence the validity of reconstruction systems.

5.2.3. Word Families and Morphological Paradigms

Since the Sinitic languages lack inflectional paradigms, internal reconstruction in the field of Chinese linguistics can only be based on the word family hypothesis. This hypothesis is also applied in the field of Indo-European linguistics, but it is usually taken to be less reliable, as can be seen from the uncertainty of some linguists concerning proto-forms like PIE $^*h_1ek^j$ vos $\{horse\}(cf. Meier-Brügger 2002: 55)$, where the proposal of *h_1 - is based on the assumption that the word is derived from the PIE root $^*h_1ek^j$ - $\{quick\}(ibid. 56)$. The different proposals for OC $c\ddot{a}i \not \Re \{gather, pluck\}$ (see §1.) reflect this lower degree of reliability: since the grapheme analysis does not show any significant alternations, the protoform of $\underline{Baxter} \& \underline{Sagart}$ is entirely based on the assumption that there was a word family connection between $c\breve{a}i \not \Re \{gather, pluck\}$ and $s\grave{e} \not \Re \{pluck, cut\}$, which suggests an alternation of MC tsh- ($^*CC *s$ - *r -) and sr- ($^*CC *s$ - *r -; cf. Sagart 1999: 68). On the other hand, Starostin (1989: 251f) and Zhèngzhāng (2003: 45) base their claims on comparative evidence from Tibeto-Burman languages and Proto-Min.

This question pertains to both the reliability of reconstruction methods and the language dependence of linguistic reconstruction and therefore seems worthwhile to be investigated within the project.

5.2.4. Further Issues

Chinese historical linguistics offers rich material for the exploration of the concept of validity of linguistic reconstruction. The above mentioned problems are the result of a rather

eclectic choice and are only intended to give a brief impression of the significance of reconstruction in the field of Chinese linguistics for the proposed project. Further issues have to be selected during the process of investigation.

6. Concluding Remarks

Validity in linguistic reconstruction is a rather puzzling issue. This is surely due to the fact that the research object of linguistic reconstruction is "idiosyncratic" in its nature. Historical sciences are characterised '[...] durch ihr Interesse für tatsächliche, singuläre, spezifische Ereignisse im Gegensatz zu Gesetzen oder Verallgemeinerungen' (Popper 1956: 112). It is therefore doubtable whether it is possible to operationalize the concept of validity in linguistic reconstruction and to make it fully measurable. But that doesn't mean that one shouldn't give it a try. However, I am convinced that the proposed project will make some new contributions to the discourse on reconstruction methodology by taking a new viewpoint on linguistic reconstruction.

7. References

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