On arguing from diachrony for paradigms

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1. Introduction

Paradigms hold a special place in most linguistic descriptions and are often taken to be crucial synchronic theoretical constructs. They are almost a given in most recent theories of morphology. "Almost" is a crucial qualifier here, since some accounts of word-structure that still have considerable currency in the literature, such as Williams (1981), treat the paradigm as an epiphenomenon rather than as a basic unit of morphological organization. But the status and value of the notion of "paradigm" is not restricted to synchronic concerns, as it also holds an important place in various sorts of historical linguistic investigation. For instance, following the observations in Meillet 1925 about "faits singulairs" -- comparable facts across languages that are so unusual in certain ways as to be unlikely to be accidents of history -- paradigms can be important in linguistic reconstruction and in the determination of genetic/genealogical relations among languages.

Meillet was of the opinion that in looking at, say, Hittite and Sanskrit -- to take two Asian representatives of the Indo-European family -- the matchings that one finds in the paradigmatic relationship between full-grade forms (that is, with a vowel) of a root in the singular present tense of a verb and zero-grade forms (that is, with a full vowel missing) in the plural, as in Hittite *kuenzi* 'he kills' / *kunanzi* 'they kill' or *ešzi* 'he is' / *ašanzi* 'they are', equatable with Sanskrit *hanti* 'he strikes' / *ghnanti* 'they strike', *asti* 'he is' / *santi* 'they are',[1] constituted a singular enough fact to allow for a judgment of a genetic (or, genealogical) relationship between Hittite

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[1] These forms require a bit of deconstruction for the non-Indo-Europeanist. Hittite *ku* here is to be taken to represent a labiovelar, and in this case a voiced one, even when occurring before a consonant, as in the plural form (which is thus [g^wn…]). The Sanskrit alternation between *h* (representing a voiced sound in the Sanskrit phonological system) and *gh* (a voiced aspirated, or perhaps better, murmured, stop) is due to the presence versus absence of a vowel that was originally front, hence *e in the singular. Thus these forms can be reconstructed as *g^when-ti / g^whn-enti and *H_1es-ti / *H_1s-enti, where *H_1 is one of the so-called "laryngeal" consonants; the Hittite #*a*- in the plural *ašanzi* apparently reflects a vocalized form of the original laryngeal consonant.

and Sanskrit even if no other information were available. Of course, other information *is* available, including, in these cases, the matchings in meaning and the regular sound correspondences, but Meillet's point is well taken nonetheless; it is not just the forms themselves that match between the two languages here but also the special paradigmatic linkage between the forms is to be observed in both languages and that linkage constitutes a striking fact that would be hard to explain without recourse to a shared history, that is without recognizing the two as genetically/genealogically related languages stemming from a common proto-language.

Nonetheless, despite their ubiquity in synchronic accounts and theories, and despite their diachronic utility, there is legitimate debate among theoreticians as to whether paradigms constitute a necessary basic theoretical construct or instead represent a secondary phenomenon that derives from other basic constructs, such as inflectional realization rules. This debate has consequences for the degree to which the paradigm is useful in typological and historical comparisons, for if the paradigm itself is derivative, it is not clear that it offers something tangible for the purposes of comparison. The singular facts of Hittite and Sanskrit verbal form linkages, in such a view, would not be primary facts about each language, but rather would be epiphenomenal manifestations of other aspects of the grammar. Admittedly, those other aspects -- the realizational rules that give the appearance of coherently linked forms -- could be singular comparanda that could point to a genetic/genealogical relationship, but the surface paradigms themselves would not be, and in any case, such rules are more abstract and less directly observable than the apparent paradigms themselves.

For this reason, it is useful to consider what evidence there might be for the existence of paradigms as a theoretical construct that must be taken seriously in linguistic analysis. While one might turn to psycholinguistic experimentation or to detailed theoretical argumentation to resolve this matter, there is, as it happens, positive evidence that emerges from a consideration of certain types of linguistic change. Before turning to that consideration in sections 3 through 5, what is meant by a "paradigm" is clarified in section 2.

2. What is a paradigm?

A paradigm can be characterized as an organized set of inflectionally related forms, i.e. those that can be construed as containing syntactically relevant and/or syntactically determined

morphology. Moreover, these forms can be schematized as a set of "cells".[2] Although nothing crucial hinges on them, two assumptions about these cells can be made. First, the content of the cells can be conceived of as bundles of features, e.g. [1 Person], [+ Plural], etc., that are eventually spelled out as actual forms. Additionally, one can assume that there are relations among cells that need to be expressed somehow (e.g., via redundancy rules over the bundles of features that define each cell, via rules of referral, via OO-correspondence statements, or the like). "Paradigm" can thus be understood in a narrow sense, as sets of cells that share certain features (such as case, gender, and number features for nouns, or tense, mood, aspect, voice, person, and number features for nouns, but also in a broader sense as involving sets of cells in the various narrowly defined paradigms or other systematically related forms with grammatical functions. The narrow sense is what is generally intended when one talks about a "paradigm", though the broader sense can also be useful. The narrow sense also allows for a useful distinction between "paradigm-internal" phenomena and "paradigm-external" phenomena, though the broad sense allows for overt expression of what prove to be important relationships as well. With these terms and distinctions in place, the relevance of language change for demonstrating the utility of the paradigm as a theoretical construct can be explored.

3. Some Nonevidence from Language Change

It turns out that not all historical developments concerning paradigms is of equal value. In fact, what might be thought of as a reasonable place to seek confirmation of the existence of paradigms, namely in how they come to into being, turns out not to be all that illuminating.

That is, a natural diachronically oriented question to ask regarding paradigms is how they arise in the first place. There are surprisingly few answers in the literature, though on a smaller scale there is a fair bit in traditional historical linguistics on how particular inflectional forms arise. For instance, Old Lithuanian shows three innovative "secondary local" cases that are part of its nominal paradigms, the illative e.g. *galvôn* 'onto the head', the allative e.g. *galvôspi* 'to(ward) the head', and the adessive, e.g. *diêviep* 'near/close to god', and these are generally

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[2] I intend no claim here made about the psychological reality of such "cells", hence the scare quotes.

agreed (see Stang 1966: 175-6, 228-32), to derive from the univerbation of inherited case forms with postpositions, as in (1):[3]

(1)   a. illative   <   accusative + *$n\bar{a}$ 'in' (variant *na)

        b. allative   <   genitive + –*p(i)* (<*pie*, enclitic form of *$pri\hat{e}$* 'at')

        c. adessive   <   locative + –*p(i)*

However, such developments do not argue for a paradigm per se, and does not suggest that these forms cohere in the way that paradigms are conceived of cohering. That is, each of these newly inflected forms could be atomistic and could have arisen independently of the other innovative forms.

        Moreover, instances of paradigmatic "build-up" may have "pre-cooked" paradigmatic structures that provide an organizing principle for new forms. For instance, the Polish past tense of *być* 'be' (Rothstein 1993: 711) shows univerbation with verbal bases to create new inflectional forms, as shown in (2):

(2)   a. byliśmy   <   byli + (e)śmy   'be.1.MASC.PERS.PL.PAST'

        b. byliście   <   byli + (e)ście   'be.2.MASC.PERS.PL.PAST'

        c. byli   <   byli + Ø   'be.3.MASC.PERS.PL.PAST'

But such forms and such a tableau do not necessarily reflect the creation of paradigmatic structures, as the inflected auxiliaries bring with them their own paradigmatic structure, grafted, as it were, onto the base *byli*.

        A similar case is the development of the Ancient Greek verb *ēmi* 'say'. This verb was defective, in that the only attested forms for it in Ancient Greek, and presumably all that there was of it, were 1st and 3rd person singular present and past forms, as shown in (3):

(3)   Attested forms of Ancient Greek *ēmi* 'say'

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[3] This univerbation gives an agglutinative-like cast to the formations inasmuch as the final piece, the original postposition, does not change between singular and plural.

ē-mi	1.SG.PRES	ē-n	1.SG.PAST
ē-si	3.SG.PRES	ē	3.SG.PAST

Based on the etymology of the verb (related to Latin *ai(i)ō* 'I say' and the *-ag-* of *ad-ag-ium* 'saying'), the Pre-Greek forms that would have constituted the starting point for (3) are as in (4):

(4)   Pre-Greek 'say'

*ēg-mi	1.SG.PRES	*ēg-m̥	1.SG.PAST
*ēg-ti	3.SG.PRES	*ēg-t	3.SG.PAST

and these forms would be expected to give the outcomes in (5):

(5)   Etymologically expected forms of Ancient Greek 'say'

ēg-mi*	1.SG.PRES	ēg-a*	1.SG.PAST
ēk-si*	3.SG.PRES	ē	3.SG.PAST

Thus, only the 3.SG.PAST form in (3) is the expected outcome of the Pre-Greek paradigm, so that the attested (admittedly) defective paradigm[4] was built up using 3.SG.PAST as a base inflected with the usual endings associated with the particular morphosyntactic features in question (Joseph 1997, drawing on standard views of the history of these forms), thus *ē* + *-mi*, *ē* + *-ti*, etc.

However, again, as with the Old Lithuanian secondary cases, each form could have been built independently of the others, and the apparent paradigmatic coherence of the forms could be a mirage that synchronic linguistic analysis yields only *ex post facto*. That is, building inflected forms is not the same as building a paradigm; the reformulation of the verbal forms is a surface phenomenon, and does not reflect any underlying paradigmatic structure.

So, for all the fact that the creation of paradigms might be thought of as the best evidence for the notion/construct of the "paradigm", such developments are at best only weak indicators

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[4] The easiest assumption to make about the defectiveness of the paradigm in (3) is that it is due to the piecemeal nature of the reconstitution of the paradigm; that is, (4) would more properly include second person forms, so that the complete paradigm was never fully re-built.

that one is dealing with a set of linked forms. They do offer some indication in that the forms do end up showing similarities, but it cannot be demonstrated that some sort of linkage was the motivation for the similarity, as opposed to it being the case that speakers simply built each form based on a pattern by which appropriate endings are added onto perceived bases. For that reason, what happens after there are identifiable paradigms is far more instructive, illuminating more clearly the paradigmatic connections that exist and which, it can be posited, most likely existed so as to allow the paradigm to emerge in the first place. With that in mind, evidence of a more positive nature can be examined.

4. Positive Evidence for Paradigms from Analogical Change

A common phenomenon in analogical change is for forms within a paradigm to be affected by the change but for extra-paradigmatic forms to be unaffected. Three such cases are given below. They allow for an inference of unity for inflectionally related forms, i.e. a paradigm in the narrow sense developed above, distinct from derivationally related forms. That is, they show that the paradigm has a coherence and that there is a boundary of sorts to be recognized between the forms in a paradigm and the forms outside a paradigm; recognizing what lies outside the bounds of a paradigm necessarily entails recognizing what lies within.

The first such case to be discussed here is the set of developments with the *s*-stem nouns in Latin. Original paradigms with stem-final *-s-*[5] came to have stem-final *-r-* throughout the paradigm as a result of sound change and, importantly for the issue at hand here, leveling, i.e. a (type of) analogical change. In particular, forms where stem-final *-s-* was originally intervocalic were affected by the regular rhotacization sound change by which Latin $s => r$ /V__V, and in forms where original stem-final *-s-* was word-final (e.g. in the NOM.SG) and thus unaffected by the rhotacism sound change, that *-s* was replaced by the *-r* of the rhotacized forms, by analogy with those *-r*-forms; some representative cases are given in (6):[6]

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[5] Comparative evidence indicates that Proto-Indo-European had an *-Vs- noun-forming suffix (cf. Sanskrit *jan-as-* 'race, class of people' (based on a root √jan- 'be born')) so that in this paradigm *-s- ending the stem would have been original.

[6] A note on my conventions here: I use ">" to indicate the effects of regular sound change and "=>" to indicate the effects of analogy (leveling); the * after a form indicates a form that is expected but happens to be unattested.

(6)   Latin *s*-stem nouns

'honor'/NOM.SG	*honōs	>	honōs	=>	honor
GEN.SG	*honos-is	>	honor-is	>	honor-is
'tree'/NOM.SG	*arbōs	>	arbōs*	=>	arbor
GEN.SG	*arbos-is	>	arbor-is	>	arbor-is
'oak'/NOM.SG	*robōs	>	robōs*	=>	robor
GEN.SG	*robos-is	>	robor-is	>	robor-is

Once the analogical leveling took place, these nouns had stem-final -*r*- in all forms within the paradigm. Importantly, nonparadigmatic forms, e.g. derivationally related adjectives and nouns, were unaffected by the analogy that reshaped the base noun; *honestus* 'honorable', related to *honōr*, retains the -*s*-, as do *arbustum* 'copse', related to *arbor*, and *robustus* 'oaken, strong', related to *robor*.

A similar set of developments is seen with original *m*-stem nouns in Ancient Greek. Paradigms that once had stem-final *m* throughout[7] came to have stem-final *n* through a regular sound change whereby word-final *m* became *n*, followed by analogical extension (leveling) of *n* into forms where the original *m*, being nonfinal, was unaffected by the sound change and thus preserved; some representative forms are given in (7):

(7)   Greek *m*-stems

'one'/NEUT.NOM	*hem	>	hen	>	hen
GEN	*hem-os	>	hem-os[8]	=>	hen-os
'earth'/NOM	*khthōm	>	khthōn	>	khthōn

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[7] As with *s*-stems (see footnote 4), comparative evidence indicates that the *m* is original; cognates of *hen* include English *same*, and cognates of *khthōn* include Latin *humus* 'earth', both with stem-final *m*.

[8] For this word, 'one', this stage with alternation between forms in -*n* and forms in -*m*- is directly attested in Mycenaean Greek where the dative singular of 'one' is attested as < e-me > (to be interpreted as [hem-ei]).

GEN   *khthom-os   >   khthom-os*   =>   khthon-os

As with the Latin -s-stems, in this case too, nonparadigmatic forms that are derivationally related are not affected by the leveling within the paradigm. Thus, the feminine form of 'one', *m-ía* (from *hm-ia) retains the *m*, as does the adjective *khtham-alós* 'earthly'. It can be noted that another related adjective, *khthon-ios* 'earthly', with the "leveled" *n*, presumably shows that *n* because of the high productivity of *–ios* adjectives in Greek, so that it can be assumed to have been formed, or re-formed, after the leveling reconstituted the base as *khthon-*.

The Greek adjective for 'fourth' provides a further example. This adjective shifted accent between masculine and feminine nominative singular forms, i.e. *tétartos* (M) vs. *tetártē* (F), caused by the fact that the feminine form ended in a long vowel, and that in Ancient Greek words with a long vowel in the final syllable, the accent could fall no further back from the end of the word than the penultimate syllable. The feminine form *tetártē* was used in Byzantine Greek, most likely pronounced [tetárti] by then, along with the definite article *hē* (pronounced [i]) to mean 'Wednesday' (literally "the fourth" with the Ancient Greek feminine noun *hēméra* 'day' (pronounced [iméra] by then) understood). Between Byzantine Greek and Modern Greek, accent placement in the feminine adjective was changed to the initial syllable, on analogy with the masculine, giving M *tétartos* vs. F *tétarti*. However, the Modern Greek word for 'Wednesday' is *i tetárti*, (where *i* = 'the'), a direct continuation of earlier *hē tetártē* ([i tetárti]) with the Byzantine Greek accent placement intact and unaffected by the analogical leveling in the adjectival masculine/feminine forms.[9]

The import of these examples should be clear. These situations are equivalent to saying that inflectionally related forms are affected by analogies that do not extend to derivationally related forms are not. That is, masculine/feminine forms of 'fourth' represent different inflectional realizations of the adjective, taking gender to be syntactically relevant morphology, and the same can be said for the different case forms of Latin *s*-stem and Greek *m*-stem nouns, whereas the related adjective and noun derivatives stand outside of the tightly defined

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[9] A similar scenario is seen with the adjective 'second' (Ancient Greek *deuter-*) and 'Monday', in that the adjective showed accent shifts like those in 'fourth', thus masculine nominative *deúteros*, feminine *deutéra* (with *-a* as the ending after *-r-* corresponding to *-ē*) and was used in Byzantine times for 'Monday', *hē deutéra* (pronounced [i ðeftéra]). On the way to Modern Greek, the accent was leveled out in the adjective favor of the masculine form, and the feminine ending was regularized to *-i*, thus [ðéfteri] 'second'/FEM, but the word for 'Monday' has remained with the older accent placement and the older ending, and is thus still [i ðeftéra].

inflectional set.[10] These inflectional sets are, of course, paradigms, thus justifying the interpretation of these developments as reflecting analogies with paradigm-internal limitation but no extension to paradigm-external forms.

Analogical developments admit of an interpretation as directly reflecting cognitive reality for speakers, in that by analogizing one form to another, speakers are actively establishing a connection between forms and overtly acting on that established connection. If speakers thus treat paradigmatically related forms as having a privileged sort of connection, one that derivationally related forms do not have, then this means that the relatedness among forms within a paradigm has a status that other types of relatedness do not have. In this way, then, working with the view that the goal of linguistic theory is to model the competence and knowledge of native speakers, these analogical developments provide an argument from language change for the theoretical construct of "paradigm" as a basic foundational element in grammar.

5. An Extended Sense of 'Paradigm' and its Value Here

In §1, it is suggested that an extended sense of "paradigm" can be useful too, involving forms with grammatical functions that show a systematic relationship to one another even if not of the "cell-and-linkage" sort that the narrow sense of "paradigm" entails. One such possible extension concerns the fact that personal pronouns and verb endings function in similar ways, both providing some grammatical indication as to the argument structure of a clause, pronouns overtly and verb endings indirectly. However, in part because there are languages where free pronouns are rarely evident in surface structure, it has been proposed, by Jelinek 1984, that verb endings, what are traditionally thought of as agreement markers, are not indices of arguments but are in fact the arguments themselves. Suggestive evidence for this "Pronominal Argument Hypothesis" comes from similarities in form between personal pronouns and verb endings, such as the parallels, recognized as early as Bopp 1816, in Indo-European first person endings and pronouns, both showing *-m-* as their nucleus, e.g. Latin 1SG.PRES *-m* / ACC *mē*, Greek *-mi* / *me*, and so

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[10] The feminine form of 'one' was in such an opaque formal relationship to other gender forms, inasmuch as the feminine nominative base was simply *m-* and the nonfeminine base was *hen*, that it constituted a suppletive form, and presumably was thus not subject to any changes involving the *hem-/hen-* forms.

also in other languages throughout the family (from Proto-Indo-European 1SG *-m(i), ACC *me).

More compelling evidence supporting the systematic linkage between pronouns and verb endings, however, derives from analogical developments, so that with this extended paradigm, as with paradigms in the narrower sense, evidence from language change supports the theoretical construct. That is, there is considerable evidence showing that personal pronouns can analogically influence verb endings and vice versa. Joseph 2004, for instance, shows that the dialectal Macedonian first person plural ending *-ne*, e.g. *sne* 'we are', *vidofne* 'we saw', for expected *-me*, is due to influence of the free forms of the related pronoun such as nominative *nie* 'we', and for the opposite influence, one can cite the Judeo-Spanish pronoun *mosotros* 'we', remade from expected *nosotros* (found in most varieties of Spanish) by influence of the first plural verbal ending *-mos*.[11] Once again, these analogies can be interpreted as reflecting steps that speakers took as agents, acting on connections they cognitively forged between forms; such connections, therefore, have a reality that obliges linguistic theory to take note, as Jelinek's Pronominal Argument Hypothesis does.

6. Conclusion -- A Cautionary Note with Further Positive Indications for the Paradigm

By way of conclusion, a cautionary note tempering Meillet's optimism discussed in §1 about paradigms and relatedness is in order; the reason for this has to do with what can happen with paradigms in contact situations between speakers of different languages. Contact is out of the question for the Hittite and Sanskrit parallels that drew Meillet's attention. Still, paradigms can be replicated across languages due to contact.

Janse 2009, for instance, has shown how verbal paradigms in some Cappadocian Greek dialects were reconstituted on the basis of Turkish models, leading to structural convergence, though mostly without any directly comparable formal material.[12] For example, the past tense of 'be' in (8a) is innovative, compared to earlier Greek 1SG.PRS *i-me* / PST *i-min*, 1PL.PRS/PST *i-*

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[11] Janda 1995 gives other examples, such as New Mexican Spanish first plural *hablabanos* 'we were speaking', with *-nos* for expected *-mos*, due to the free pronoun *nosotros* 'we'; see also Joseph 2006, 2011 for further discussion of the pronoun-verb ending connection.

[12] The lack of comparable material is generally so, but the Turkish 1PL ending *-k* is found on nonactive forms in some varieties of Cappadocian Greek, as described by Janse 2009.

meste, etc., showing a rebuilt paradigm that is based on the 3SG past form with the endings (or rather, forms) of the present added on, just as in Turkish, as shown in (8b):

(8) a.   Anakú (Cappadocian Greek) 'be'

              PRES   PAST

      1sg (í)-me   (í)-to-me

      2   (í)-se   (í)-to-se

      3   (í)-ne   (í)-ton(e)

      1pl (í)-meste   (í)-to-meste

      2   (í)-ste   (í)-to-ste

      3   (í)-ne   (í)-ton-(de)

  b.   Anakú Greek   Turkish

1sg	-me	-(i)-to-me	-Im	-(i)-dI-m
2	-se	-(i)-to-se	-sIn	-(i)-dI-n
3	-ne	-(i)-ton-Ø	-Ø	-(i)-dI-Ø
1pl	-meste	-(i)-to-meste	-Iz	-(i)-dI-k
2	-ste	-(i)-to-ste	-sInIz	-(i)-dI-nIz
3	-nde	-(i)-to-nde	-lEr	-(i)-dI-lEr

One has to wonder whether, if nothing more were known about Greek other than Cappadocian paradigms like those in (8) or about Turkish other than the model of (8b), linguists would be struck by the "faits singulairs" of the structural parallelism in (8) and think of a Greek-Turkish genetic/genealogical relationship.[13]

       Similarly, even though paradigm creation per se is not compelling evidence for the existence of the paradigm, as noted in §3, there are facts about noun cases in various Central and

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[13] To some extent, this is the problem encountered with some controversial and still disputed relationships, such as Korean and Japanese or Aymara and Quechua, in that structures might match but not the forms that fill out the structures.

South Asian languages that call for the same sort of caution as with Cappadocian Greek and Turkish. That is, the Central Asian Indo-European branch Tocharian has an apparent agglutinative structure to certain of its noun cases, not unlike the Old Lithuanian secondary cases seen in §3 (and see footnote 3); for Tocharian A *yuk* 'horse', for instance, the comitative singular is *yukaśśäl* 'with the horse' and the comitative plural is *yukasaśśäl* 'with the horses', with an invariant end-element *-aśśäl* signaling comitativity added onto inflected singular and plural forms respectively, and the locative is *yukaṃ* in the singular and *yukasaṃ* in the plural, with *-aṃ* added onto the inflected forms.[14] This agglutinativity is strikingly like what Central Asian Turkic languages and South Asian Dravidian languages show, suggesting an areal, and thus a contact-induced, component to these structures.[15]

Thus agglutinative structures cohering in a paradigm may be an areal feature for Turkic, Dravidian, and Tocharian. This in itself does not necessarily say anything about the paradigm as a theoretical construct, but if paradigms and paradigmatic structure can be passed between languages as a result of contact, it becomes possible to construct another argument from diachrony for paradigms as a primary notion, as opposed to their being secondary and derivative epiphenomena. That is, if speakers pay attention to paradigms in contact situations, to the extent that paradigmatic structure can be borrowed, then it can be argued that linguistic theory should pay attention as well; theories, after all, as argued in §4, are supposed to allow for the mirroring of human linguistic competence and thus they should, in this view, directly reflect whatever real speakers attend to.

It has been claimed, e.g. by Friedman and Joseph 2014, that in language contact, the surface form matters and not deeper abstract structure. Thus paradigmatic structure, if borrowable, is unlikely to be just an epiphenomenon, since realizational rules, as abstract parts of the grammar, are not overt and thus would not be directly borrowable. On the other hand, the forms themselves, and thus their cohesion with other forms, i.e. their belonging to a paradigm, are concrete, and would be borrowable. Contact-induced change, therefore, is like internal

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[14] The origin of these agglutinative structures is quite similar to that seen with the Old Lithuanian forms outlined in §3 and footnote 3; for Tocharian A, the comitative ending derives from the univerbation with a postpositional element *śla*, and the locative from univerbation with a postpositional element *an(n)e*.

[15] One might even include the South Asian Indo-European Sanskrit here, if the somewhat looser connection between stem and ending in the instrumental, dative, and ablative plural forms ("looser" in the sense that the ending behaves for purposes of sandhi like a separate word, not an ending per se) is taken to suggest an incipient univerbation like that leading to agglutinative structures in Tocharian. However, the relevant endings are not used with, e.g., the singular, thus negating the parallel with Tocharian (and Dravidian and Turkic).

change, and thus like diachrony more generally, in providing a basis for another argument in favor of recognizing the paradigm as a primary theoretical construct.[16]

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[16] The situation with language contact, as outlined here, must be distinguished from language-internal paradigm development, which can depend on abstractions. That is, it can be claimed that speakers can deal with abstractions in their native language, as part of the regular language-acquisition process, but not in contact situations. Contact-related paradigm development would not involve abstractions if contact *ipso facto* must deal with the concrete and surface-related manifestations of languages.

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