Connecting linguistics and archaeology in the study of identity: A first exploration

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Abstract

In this study, we discuss the ways in which linguistics and archaeology approach and investigate identity, focusing on potential areas of overlap between the two disciplines as a possible research program for future collaborative studies. Although the two disciplines may appear quite removed from one another at first sight, both deal with cultural items – whether material or linguistic – which are intrinsic to what it means to be human and which have an inherent function both as a means of communication and in their symbolic dimensions. Our ultimate goal here is to develop an interdisciplinary approach to identity as a specific field of human connectivity which can yield deeper insights into the topic than those achieved within the individual disciplines thus far and for which such a joint approach could be especially fruitful.

Introduction: Identity as a platform of social and cultural connectivity

Identity is an inherently relational concept, as someone or something can only be similar to or different from someone or something else (Assmann 1992). As such,

it is a showcase example of *connectivity*, as it can be seen as an interaction or interrelation between two or more entities. All humans possess personal as well as collective identities, and through them they are situated in a multi-dimensional and dynamic mesh of relations construed by identifications, alterities, and the spaces and thresholds in between. Identity requires human and "beyond-human" connectivities to develop, to be constructed, performed, maintained and changed, and at the same time it is, in itself, a platform of connectivity spanning individuals, social groups, and imagined communities.

Identity is thus a constituting element of what it means to be human, reaching back through time to the beginning of our species, and it remains highly relevant socially and politically in the post-modern, increasingly globalised world. Personal or self-identity can reflect the integration of a person with their experiences, internal and external expectations, and pre-ascribed social roles into a society based on stable social and metaphysical structures (*e.g.* cosmic order, religious world view, *etc.*), but it can also be situated at a more unstable intersection of various concurrent systems of meaning (Glomb 2013). Collective or group identity needs internal strengthening through common culture, *e.g.*, language, rituals, unifying symbols and myths as well as through the construct of alterity in order to justify the group's own superiority (Assmann 1992; Horatschek 2013) and it is connected to the development of group-specific cultural forms. Post-colonial discourses, in particular, have been increasingly focusing on the intermediate area between identities, tracing strategies and phenomena such as mimicry and cultural hybridity (Bhabha 2016), and going so far as to even denying the existence of cultural identity in favour of the more fluid and plastic category of cultural distances (Jullien 2017). Thus, negotiation, translation and plural "communities of being" with their fuzzy edges (Bird-David 2017) are taken into view in order to understand the flexible and situational character that identities can take along temporal, spatial and trans-cultural trajectories.

Research on identity is conducted in a number of disciplines, including anthropology, sociology, philosophy, politics, psychology, archaeology and linguistics, among others. In this paper, we examine the ways in which linguistics and archaeology approach and investigate identity, focusing, in particular, on determining areas of potential epistemological overlap and of mutual reinforcement between the two disciplines as a possible research program for future collaborative studies. While linguistics and archaeology as scholarly fields may appear far removed from one another at first sight, language, material items, and embodied structures and features are all cultural artefacts, which are intrinsic to what it means to be human, and they have an inherent function both as means of communication and in their symbolic dimensions. Language and material items, in particular, are connected to each other in complex relationships: Only through the mediation of language do "things" as realia receive a cultural and historic context and are embedded into narratives, thus becoming *telling objects* that are recognisable in their meaning (Bal 1994). One and the same object can develop different meanings and significances in different contexts, whereby language is the major factor that constitutes the readability of things (Vedder 2014). Structurally, both language and material culture are comparable in certain respects, e.g., concerning grammar in language, and *chaînes opératoires* in the production of material items.

While there has been some collaboration between the disciplines of archaeology and linguistics at a more general level (for example the Archaeology and

Language book series by Blench and Spriggs 1997; 1998; 1999a; 1999b; or Anthony 2007), in our cross-disciplinary discussion we strive to determine whether an interdisciplinary approach to identity as a specific field of human connectivity could yield deeper insights into the topic than those achieved within the individual disciplines thus far, and for which questions, aspects and scientific prospects such a joint approach can be especially fruitful.

Approaches to identity in archaeology and linguistics

In order to identify research areas in which a collaborative archaeological and linguistic approach to identity could be fruitful, we first very briefly review the state-of-the-art within each discipline.

Approaches to identity in archaeology

Archaeology, as the study of humanity in the past, has always been concerned with identity. The earliest archaeological studies appeared to be more interested in the material culture created by past people than in the people themselves, judging from the distribution maps of artefacts marching seemingly autonomously across the landscape. In time, these artefact assemblages were mapped, this time in a metaphorical sense and seemingly uncritically, onto the humans who made and used them, creating the concept of archaeological cultures which drew on the older ethnological concept of the *Kulturkreislehre* with its key fields culture, language, people, and race (Brather 2004). Within the frames of an "ethnic interpretation", these archaeological cultures were equated with monolithic and invariable social groups with names directly linked to their material culture such as the 'Beaker people' or the 'Linearbandkeramiker' (Kossinna 1912). It was assumed that these material culture assemblages were the result of a common set of norms and values shared by a community and such a community would, in turn, have to be understood as an ethnic community/population with shared ancestry (Childe 1929). Such simplistic presumptions have been widely criticised in archaeology for many decades now (*e.g.* Brather 2004; Jones 1997; Gramsch 2015), although they have gained ground again over the last few years in the wake of palaeogenetic studies (*e.g.* Haak *et al.* 2015; Kristiansen *et al.* 2017). For certain time periods and constellations, language is also added to the equation (in the sense of "pots equal people equal shared language", see, *e.g.*, Kristiansen *et al.* 2017). Such suggestions have triggered controversial discussions and strong reactions, especially from anthropologically-informed archaeology (*e.g.* Furholt 2018; Heyd 2017; Hofmann 2015).

Over time, archaeologists have become more reflexive and critical in the way they apply their knowledge about artefacts to what it means in terms of the people of the past. The first major shift occurred in the mid-twentieth century, when the focus of much research became the "people behind the pots". However, this again often meant applying ethnic labels to the same monolithic groups that had previously been defined by the material culture. With the rise of post-processual archaeology in the later twentieth century, increasingly critical approaches (*e.g.* feminist and gender archaeology, post-colonial archaeology, ethnoarchaeology and archaeologies of age, to name but a few) expanded the ways in which the identities of past peoples were studied and interpreted (*e.g.* Hodder 1982; Conkey and Spector 1984; Gero and Conkey 1991; Brather 2004; Gosden 2004; Díaz-Andreu

et al. 2005; Burmeister and Müller-Scheeßel 2006; Appleby 2010). The agency of past humans was acknowledged as well as the ways in which not only artefacts but also people and ideas moved between groups over distances. Additionally, archaeologists are now more aware of the role that their own socio-political contexts play in shaping how they interpret the past, which is likely to have been far removed from the version of the world in which we currently exist and our own life experiences (Taylor 2013).

In current archaeological approaches to identity, it is widely accepted that we can never know for certain how individuals identified themselves; this inner life is highly inaccessible, even to disciplines that study it in living people. From an anthropological point of view, it is understood that identity tends to be both multifaceted and processual (*e.g.* Barth 1969). Identity is componential, its major facets being those termed as ethnic, social, cultural, religious and linguistic (Banks 1996). Semiotic approaches to material culture styles have taken into view the various types of "stylistic messages" in communicating and enhancing personal as well as group identities (Furholt and Stockhammer 2008; Zeeb-Lanz 2006; Wobst 1977). In archaeology, a focus on practice and agency over the last years has led to more dynamic and fluid concepts of identity, emphasising the multi-faceted arena of continuity and change, of performativity and (re)negotiation, and of the already mentioned hybrid communities, the members of which might express identities differently, depending on situation and addressee (Gramsch 2015).

In terms of which aspects of identities archaeologists are able to access, the focus has primarily been on *groups*; whether cultural groups, social roles, or age or sex-based groups, among others. However, where the data permits, archaeologists also aim to study individual identities: Natural scientific methods can provide detailed insights into aspects of a person's biography that may have been relevant to their identities. For example, aDNA can provide kinship relationships or information on pathogens carried, stable isotopic analyses can determine dietary inputs and probable geographic origins, and osteological analyses can determine whether an individual suffered from particular illnesses, injuries and disabilities or performed certain repetitive tasks that left traces on their skeleton.

Thus, when using evidence from prehistoric settlements and mortuary sites as a whole, the focus has traditionally been on what can be said about group identities and their dynamics; often of one community versus a neighbouring one, since identities are most pertinent, visible and actively communicated in situations of contact or opposition, although emphasis is increasingly being given to individuals' identities.

Approaches to identity in linguistics

As with the study of identity in archaeology, discussed in the previous section, identity in linguistic research is likewise understood to be both multifaceted and processual and shares many other features in common with the discussion of identity in archaeology. However, identity in linguistics, with its concentration on the use of linguistic forms as expressions of identity, differs in subtle ways from its counterpart in archaeology. The following therefore provides a very brief overview of the main components of identity in linguistics.

Similar to material objects, certain linguistic signs – *i.e.* particular choices of linguistic words, grammatical items or pronunciation patterns – are associated with specific social and cultural subdomains, while other linguistic signs

are much more frequent, occur across domains and, thus, represent a weaker signal of identity. While this is by its very nature essentialist, a "trap" which most researchers go to great lengths to avoid, linguistic researchers must acknowledge the fact that speakers themselves strongly link specific words, speech patterns and pronunciations with certain social groups and identities, allowing them to creatively exploit variations in their speech to express or even create a projection of their self-identities, which in turn allows linguists to study this phenomenon more easily than other expressions of human culture might allow.

The two most prominent subfields of linguistics which deal with identity, each with its own assumptions and methodology, are sociolinguistics and linguistic anthropology.[1] In both of these traditions, the notion of *indexicality* plays a central role. The classical example used to illustrate indexicality in introductory linguistic courses is that of a footprint; although, *e.g.*, a bear's footprint is not the same as a bear, it is uniquely connected to a bear in an essentialist manner, *i.e.*, it inherently points to the (earlier) presence of a bear, and only of a bear, at a particular location. When speaking, speakers exploit these conventionalised associations to equate a certain pronunciation or the use of certain words or grammatical constructions with a particular social identity. These so-called *shibboleths* are sometimes restricted to a few highly emblematic items, which serve to show one's own membership in this group or to identify someone else as belonging to a particular group. This reliance on the essentialist nature of indices is thus not to be understood as meaning that these sociolinguistic studies take an essentialist stance. Rather, linguists productively exploit speakers' essentialist associations, since lay conceptions of identity are themselves predominantly essentialist (Bucholtz and Hall 2004, 375-376).[2]

Most sociolinguistic studies thus tend to focus on the use of language to signal the speaker's desire to be viewed as belonging to a particular socially recognised / recognisable group, for which these indexical markers are key, allowing them to express or even quite literally create their identity through speech. This corresponds to what Penelope Eckert (2012) refers to as the third wave of sociolinguistic studies, in which the emphasis on stylistic practice views speakers

> *'*[…] *not as passive and stable carriers of dialect, but as stylistic agents, tailoring linguistic styles in ongoing and lifelong projects of self-construction and differentiation' (Eckert 2012, 97-98).*

The assumption of a conventional norm also holds for language use in multilingual situations, where the use of one language instead of another – whether as the preferred language of the entire conversation, of a particular sentence or even of a single word – is perceived to be a "contextualisation cue" and used in multilingual speech in many ways similarly to intonation in monolingual speech (Gumperz 1982, 98). More central to our discussion here is that it is often employed to signal

1 Or "anthropological linguistics", depending on one's perspective.

2 Indexicality plays a central role in one recent, highly influential school of sociolinguistics, following Silverstein's (2003) theoretical discussion of this concept. It has been used to describe, *e.g.*, the processes involved in the re-interpretation of the pronunciation of highly emblematic words in what was once a working-class pronunciation in Pittsburgh as a means of self-identification with that city, including those who had left the area to look for work elsewhere (*e.g.* Johnstone *et al.* 2006). It is also productively used to describe the elevation of the status of a particular dialect to that of a standardised national language, which plays a central role in modern societies with respect to identification with a nation state, such as the enregisterment of Received Pronunciation in Great Britain (Agha 2003) or of Putonghua in the People's Republic of China (Dong 2010).

identity, *e.g.*, with a local ethnic minority and its traditional language, with the vernacular of a larger region, or with a national language, among others. For example, Cantonese-English code-switching, *i.e.*, the use of morphemes or words from two different languages in a sentence or conversation (cf. Swiss *Herr Müller et les enfants*), at the University of Hong Kong serves both to express one's own perceived identity with the local, Cantonese community but at the same time also as a part of the educated, English-speaking university (Trudgill 2000, 106).

In contrast to the emphasis in sociolinguistics on the expression of identity discussed above, linguistic anthropology is much more concerned with the conceptual notions involved in understanding identity as a whole. An overview of this topic is presented in Mary Bucholtz and Kira Hall (2004), in which the authors also outline their approach to the topic, which they refer to as the "tactics of inter-subjectivity". Here, in addition to the mechanisms through which identities are produced, such as *practice*, *performance*, *indexicality* and *ideology*, these tactics are claimed to

> '[...] *illuminate the motivations for identity work, in the same way that research on the semiotic processes of practice, indexicality, ideology, and performance helps to account for the mechanisms where identities are produced' (Bucholtz and Hall 2004, 387).*

Unlike archaeology, which by definition deals with (the remains and traces of) earlier societies, specialists in synchronic sociolinguistics and linguistic anthropology work with actual speakers and can, at least to a certain point, determine to what extent linguistic reflection is *conscious* or *subconscious*. This has important consequences, as language is often viewed – and spoken of – as an emblem of ethnic or some other social identity. For example, Papua New Guinea has one of the highest degrees of linguistic diversity in the world, with ca. 760 languages in a territory comparable in size to Sweden. It has often been reported in the literature that, in addition to possible environmental factors, this high language density is due to the local attitude toward languages as a highly salient marker of ethnic group-identity (*e.g.* Kulick 1992, 2). For example, Don Kulick (1992, 2-3) reported that a village in Papua New Guinea (Huon Valley) decided by committee that the word for 'no' (*bia*) was to be changed to *buŋɛ* in order for their language (Selepet) to be different from the otherwise identical language in the next village. Another example of emblematicity is the non-Mandarin-like word order pattern in Cantonese with respect to the adverb *sin* 'first', which follows and does not precede the verb. This emblematic feature is consciously identified by Cantonese speakers as authentic in the context of otherwise similar word-order patterns in Cantonese and Mandarin (Aikhenvald 2007, 41).

Identity in archaeology and linguistics: Definitions and concepts

As we have seen, the study of identity involves many similar concepts in linguistics and archaeology, despite all differences. This is not unexpected, since the objects of study of both disciplines emerge as the result of the cultural evolution of the human species (cf. Dediu *et al.* 2013 on language) and, unavoidably, both are subject to social constraints. What is more, in both cases they emerge primarily for practical purposes of everyday life that are not restricted to identity issues. Thus, most material objects (tools, dress, buildings, *etc*.) serve diverse practical

Identity targets	*self*-identity vs. *group*-identity
Types of acts-of-identity	*conscious* vs. *subconscious*
Direction of identification	*projected* vs. *perceived*
Identity domains	*language, ethnicity, religion, social status, gender, kinship, teacher-student relations, etc*.
Modes of identification	*relational* vs. *categorical*
Identity parameters	*performativity, regulatory ideals, individuals* vs. *dividuals*

Table 1. Constructing identity.

purposes and needs. Likewise, language is designed for the transfer of information from one individual to another, but at the same time, in its phatic function, it serves as a social instrument to form and maintain bonds with others in a group. Identity thus emerges as a kind of by-product, *i.e.*, as a blueprint of human socialisation while speaking, acting, and creating as well as using objects.

Both material and linguistic strategies of constructing identity build upon the pragmatic principle of "tacit alternatives". Thus, there are always alternative ways of achieving the same practical goal. For example, a winter jacket may potentially have very different designs and all of these could perhaps fulfil the primary function equally well. Likewise, language inventories are abundant and provide a number of alternative means and circumventions for expressing largely the same state of affairs (cf. Labov 1972). The particular means selected often does not come "for free", but – in addition to its purely semantic content – brings in socially relevant effects. As a result, linguistic production is always individualised and each particular choice among possible alternatives brings about an *act of identity* (a term coined by Le Page and Tabouret-Keller 1985). This makes languages simultaneously social institutions in addition to being individual cognitive representations and dispositions (Evans 2013, 236-237). Likewise, in the production and use of material artefacts, especially in non-industrial conditions, individual choices and opportunities are inherent. This is also the case in other realms of human life, *e.g.*, concerning mobility, diets and subsistence occupations, some of which are traceable via archaeological methods.

In what follows, we present our conceptual apparatus for describing and investigating identity, which we anticipate in Table 1 by way of overview.

Before we take a closer look at these categories, we emphasise that, in most real-life situations, we encounter complex combinations of these categories simultaneously, with particular categories being more salient than others in specific contexts (Meyerhoff 2006, 71-72, quoting Tajfel 1978).

Identity targets

We begin with the following two definitions, which describe what is arguably the primary distinction with respect to identity:

(1) *Self-identity* embraces various acts-of-identity (linguistic, material, dietary, *etc*.) that make an individual a unique entity within their community.[3] It is important to note, however, that self-identity is located at the intersection of

3 Also referred to as "personal identity" (*e.g.* Glomb 2013; Meyerhoff 2006).

the various group-identities held by an individual, plus a certain additional, unknowable, factor related to a person's inexpressible inner world, as mentioned above.

(2) *Group-identity* embraces various acts-of-identity (linguistic, material, dietary, *etc.*) that make a particular social group inwardly cohesive and outwardly distinct within its larger social field.

Ethnic identity is a special case of group identities. It is characterised by a belief in commonality, most often also entailing a common origin. In trying to elucidate the different aspects of identity, people may cluster into discrete units, reducing the complexity of their self-identity and intersecting group identities to their ethnic identity. According to Fredrik Barth (1969), ethnicities are categories of ascription and identification as well as a means of distinguishing (social) groups. Taking a more dynamic view, it can be said that

> *'*[e]*thnic groups rarely exist as structurally distinct isomorphs. Instead, there often tend to be overlapping sets, groupings that encompass other groupings' (Williams, cited in Banks 1996, 45).*

It is a truism in linguistics that there is no one-to-one relationship between "ethnic groups" and a particular language; for as long as we have records, (perceived) ethnic groups have been documented "abandoning" their traditional languages at some point in time in order to only pass a more prestigious or useful language on to their offspring, usually a language of administration, trade, or some other supra-regional variety, which holds the promise of social and material advancement, but which also eventually leads to the "death" of the respective traditional language. Nevertheless, the essentialist view of the relation between ethnicity and language is, at least at present, almost universally accepted, with many ethnic groups claiming that only those who speak the traditional language associated with their group are "real" members of that group. This can even go so far that perceived ethnic groups in which no one still speaks the traditional language are said to no longer have a "native language" or "mother tongue".

Types of acts-of-identity

Acts-of-identity may be either *conscious* or *subconscious* (Meyerhoff 2006, 23). For example, it is entirely impossible for us not to interpret speech as a marker of identity. Consider John E. Joseph's (2004, 2) example of a group of strangers waiting at a taxi stand when an empty taxi drives by without stopping, with the following reactions of those waiting:

A. Out*rage*ous.

B. I say.

C. Fuckin hell.

As Joseph notes, it is highly likely that we all have a very clear picture in our head of what speakers A, B and C look like, how they are dressed, what backgrounds they come from and even whether or not we would like them, although these pictures will likely vary from speaker to speaker. While this clearly involves the "over-reading" of a speaker's words "since the data on which it is based is (nearly) always inadequate

to support the inferences made" (Joseph, 2004, 38), it is – for better or worse – an integral part of the human experience. Much of this happens *subconsciously* during speech production to such an extent that it is nearly impossible to suppress one's group- and/or self-identity while producing language. Similarly, the instinctive or habitual use of certain material objects in specific ways related to identity-based habits or cultural learning can be very difficult to change. For example, residue analyses of imported Mediterranean drinking and serving vessels – designed for wine and specific feasting ceremonies – in Early Iron Age (Celtic) France showed that these were used in local practices of beer consumption (Rageot *et al.* 2019). Archaeology can also investigate subconscious markers of embodied identities. For example, certain social roles or occupations – such as grinding grain by hand or regularly wielding a weapon with one arm – would have caused pathologies marking the individual as holding a specific identity through the way in which their bodies and movements were affected. During the Bronze Age in Central Europe, some women were buried wearing bronze leg spirals joined by chains, which would have caused a very specific gait. Use-wear analysis shows that these spirals were intensely worn during life and had not been produced merely for inclusion in the graves (Sørensen 1997; Rebay-Salisbury 2017).

The distinction between *conscious* and *subconscious* acts-of-identity is orthogonal to the distinction between self- and group-identity made above. With respect to language, the conscious construction of identity requires an awareness of the linguistic items in question, whereas the subconscious identity applies to linguistic items that speakers are less aware of. Thus, tangible foreign elements, such as loanwords, can become the focus of discussion and be frowned upon, while in structural convergence patterns often go unnoticed. Thus, language planning, language cleansing and language ideology primarily target lexical elements of which speakers tend to be conscious, while structural patterns of which speakers are not conscious are more amenable to adaptation. Similarly, a language which is no longer spoken but which an ethnic group considers to be an integral part of its heritage, and therefore of its identity, can be consciously revived and integrated into the group's daily lives. Subconscious acts of identity can also often be found in the opposition between dialect and standard variety (cf. Labov 1966; 1969), while conscious identity strategies lead to *language ideology* and *language engineering*, *i.e.*, creating linguistic norms and standards, often based on a supposedly stereotypical variety.

Similarly, material culture in archaeology is among the most widely used physical markers of conscious acts-of-identity, with examples ranging from clothing and ornaments to building styles and everyday items such as pottery vessels. From an archaeological point of view, *conscious* vs. *subconscious* acts-of-identity can be reflected in the types of stylistic messages that are carried by material items, constituting non-verbal means of communication (Furholt and Stockhammer 2008, 62-65).

Linguistic and material conscious identities need not coincide. For example, in the Middle Ob region of Western Siberia, Yugan Khanty women wear their ethnic costumes during trips to the Russian town market in the knowledge that they will be perceived as members of a small indigenous group not so familiar with the modern Russian market economy, in the hope that the Russian salespersons will not cheat them (pers. comm. Stephan Dudeck). At the same time, many of these Yugan Khanty communities do not teach their children their ethnic group's traditional language in order to provide them with better future chances as fluent Russian speakers. In contrast, Taz Selkup communities, while no longer

wearing ethnic costumes in everyday life, take great care to teach their children their "own" language, which is directed at the preservation of the internal cohesion of the community (Piezonka *et al.* 2020, 540).

Based on a model developed by the anthropologist Polly Wiessner (1983), the so-called *emblemic style* aims at transmitting a clearly defined meaning to a consciously selected addressee. Emblemic style, in its discursive function, can be employed, *e.g.*, for emphasising group identity while at the same time demarcating the boundary to neighbouring groups. In archaeological contexts, such conscious emblematic identity markers have been preserved, *e.g.*, as personal ornaments and parts of costume. The *assertive style*, on the other hand, would not have a clearly defined addressee, it would be directed more towards the producers and users themselves, directed internally at the group, thereby strengthening the common identity. The assertive style can be subconsciously employed and perceived and is thus situated more on a habitual rather than on a discursive level. In the archaeological record, assertive style might, for example, manifest itself in building traditions, decorative schemes, *etc*. However, due to the patchy character of archaeological sources, it is generally very difficult to distinguish between these two stylistic modes of communicating and constituting identities (Furholt and Stockhammer 2008).

The notions of conscious vs. subconscious aspects of identity are intricately interwoven with those of individual or self-identity vs. group-identity. For example, the complex nature of relations between languages in multilingual and multi-ethnic settings can favour various conscious group-identity activities. These kinds of settings are often found, *e.g.*, in exogamic societies where language can become the main source of ethnic self-identity. By way of example, in Vaupés (Northwest Central Amazonia), it is the father's language that is a badge of individual identity (Aikhenvald 2003, 2; 2013). Thus, despite the traditionally highly multilingual settings in Vaupés, all members of a particular village identify with just one language, while being proficient in at least one or more other languages. Despite highly multilingual settings even within one family in this community, there is a strong inhibition against code-switching to maintain this symbol of identity and, with the exception of some very restricted contexts, code-mixing and code-switching are considered inappropriate in Vaupés. Depending on the source language, the subject may be interpreted as sloppy or even slightly foolish (Aikhenvald 2003, 17).

Other multilingual situations can be quite different, however, with the respective speakers much less or even not at all concerned with language mixing. For example, Evgeniy V. Golovko (2003) provides a number of examples from Russia: Sakha and Russian (Sakha, Russia), Karelian and Russian (Karelia), Komi and Russian (Komi), *etc*. Here, the "mixed" language resulting from code-switching has become an identity marker of the group (Golovko 2003, 187), quite the opposite of the Vaupés case.

In cases such as these, if the source languages are dialects or closely related languages, this can result in various types of *koiné*, *i.e.*, a common language. Peter Trudgill (2020) provides a number of examples of koiné that have developed into nation-state languages: Hellenistic Koiné (the common language of Alexander the Great's empire), Arabic (the basis of modern Arabic dialects, which spread during the Islamic expansion), Icelandic (new settlers from various dialects of the Scandinavian homeland), Russian (due to the merger of Moscow Russian and Church Slavic), and different European dialects of Spanish in Latin America, *etc*.

When the respective language varieties are not closely related, a very different situation results. With increased use of code-switching above and beyond its local functions (*e.g.* to express a new concept, mark something as focused, change of speech partner, signaling membership to two ethnic groups, *etc.*), continued extensive use can eventually lead to a new group identity, where not the individual changes themselves but rather the constant use of the two languages together in virtually every sentence becomes the new norm, referred to as "language mixing" (*e.g.* Auer 1999).

As new generations of speakers grow up with this constant code-switching of their parents' generation as the default, they may not be able to fully reconstruct the original languages being mixed in the speech of their parents. Instead, they may identify with the new "mixed" language, referred to in linguistics as a "fused lect" (*e.g.* Auer 1999), which is no longer mutually intelligible with the two original languages and hence must be viewed as a language in its own right. Oversimplifying a bit, these fused lects can consist, *e.g.*, of the grammar of one of the original languages together with the lexicon of the other, *e.g.*, Media Lengua (Spanish and Quechua) in Ecuador or Anglo-Romani in Great Britain, or they can be structures as Mitchif (French and Cree) in Canada, where the noun phrase is largely from French while verb morphology is largely from Cree, *etc.* (cf. Winford 2003, 19 for further discussion).

In situations of superdiversity, *polylanguaging* can also result as a marker of identity. Polylanguaging is

> *'the way in which speakers use features associated with different 'languages' – even when they know very little of these 'languages'' (Jørgensen et al. 2011, 1)*

and is particularly popular among urban youths, especially those from ethnic minorities. For example, Jørgensen *et al.* (2011, 2) depicts a brief Facebook conversation between three Danish girls combining linguistic elements from standard and colloquial Danish, English, Arabic, Turkish, and Spanish as a signal of membership by the speakers (or in this case, writers) to this young, international urban and predominantly Muslim group (Jørgensen *et al.* 2011, 3-5), all within the space of a few lines.

Direction of identification

It is of course impossible to know how a person sees themselves: we can only construct our own ideas about another person's "identity", as we do not have direct access to their self-perception. As such, all of us will have different "versions" of ourselves and those around us (Joseph 2004, 8). This means that while we construct an "identity" of ourselves, this is not necessarily the identity that our counterpart constructs of us or we construct of them. For example, upper-middle class white youths of German descent from well-to-do neighbourhoods often use language from rappers' songs from the "Kiez" in Berlin; while this may make them "cool" in their own minds, it may just as well have an entirely unintended comical effect on those with whom they are interacting at the moment of utterance.

In archaeology, while we can never know how important the use of particular objects was to the identity of prehistoric peoples, we can at least infer projected identities as archaeological concepts and as a way to understand the patterns within our evidence. When looking specifically at burial evidence, we can also gain insights into the perceived identities of individuals, that is, how their identities were perceived by

others, since they were interred by their community rather than being actively involved in the deposition of their own mortal remains and grave goods.[4] Prehistorians usually assume that "personal" items (jewellery or costume items that appear to have been worn in life or well-used tools or weapons, *etc.*, as opposed to new items made for the burial) are part of the communication of personal identity during life which was carried over into the grave. To this can be added the additional evidence from natural scientific methods regarding the diet, everyday activities, illnesses or injuries, and geographical origins of individuals, which can also contribute to how someone chooses to identify themselves or how their identity is communicated in death.

But whether projected or perceived, stereotypical associations with the social structure as well as identities (on which they are based) are inherently *dynamic*. Acts-of-identity change and develop with time and life experiences, adapting to changes in the social structure. In linguistics, this realisation has only recently been fully appreciated. According to Eckert (2012), sociolinguistic studies on variation in the 20th and 21st centuries can largely be assigned to one of three different "waves", generally in chronological order and differing markedly with respect to the approach taken. In the "first wave", speakers are considered to be primarily "passive" members of large, static categories such as "class", "sex", *etc.*, that is, classes to which they "belong" as a result of which they speak in one fashion or another. By contrast, in the "second wave", researchers make use of ethnographic methods to locate local meaningful categories, concentrating largely on social networks whose members strongly tend to accommodate their own speech to that of the other members of the network. In addition, speakers can, and often do, belong to several networks, and can accordingly modify their speech to the appropriate register for each network, which we could associate here with "different identities".

Although this "second wave" of studies has the virtue of moving away from monolithic – and highly problematic – categories such as "class", *etc.*, it is still largely concerned with static categories, whose speakers speak the way they do because of the group(s) they associate with. In contrast, the third – and to date final – "wave" sees speakers as agents in a creative and dynamic process:

> *'The emphasis on stylistic practice in the third wave places speakers not as passive and stable carriers of dialect, but as stylistic agents, tailoring linguistic styles in ongoing and lifelong projects of self-construction and differentiation' (Eckert 2012, 97).*

In this third wave, variation is viewed as an essential characteristic of language, reminiscent of Joseph's (2004, 192) view:

> *'Linguistic diversity is something much more unassailable than a 'human right' – it is a tautology'.*

Identity domains and modes of identification

The next two points from Table 1, identity domains and modes of identification, while conceptually distinct, are so closely interrelated that they are discussed together in this section.

4 Although one could of course argue that there may have been some participation in the choice of objects, just as is possible in the modern world through discussions with family members and requests in last wills and testaments.

Stereotypical associations can be established in different *identity domains*. These domains reflect two different *modes of identification*: relational and categorical (Brubaker and Cooper 2000, 15). Among the domains associated with relational webs are, for example, kinship, friendship, social status, but also asymmetrical relations such as teacher-student relations or patron-client ties. On the other hand, categorical attributes characterise identity domains such as ethnicity, language, gender, nationality, or political identity.

Different identity strategies seem to favour some of these domains over others. Thus, as we have already seen, language is an important and often the major defining marker of ethnic group-identity (Trudgill 2000, 45). While this is the most frequent situation, there are exceptions in which language is not part of the ethnic identity (Fishman 1997; Mumm 2018, 77). For example, the Tsalka Greeks of the Republic of Georgia speak Turkish as their native language, as they emigrated from Turkey in the 19th century, although they do not consciously identify with this language. What is more, they may even express a negative attitude towards it and explain that it was forced upon them in Turkey (Jeloeva 1995, 4-6). Moreover, they may even refer to their native language as the *musulman dil* – 'Muslims' language' – while they themselves strongly identify with Christianity.

Thus, as noted above, language is not inherently connected to any clear notion of ethnicity, but may rather be connected to any number of factors, such as gender (*e.g.* in exogamous communities), nation (*i.e.* political identity, *e.g.,* Russian), religion (*e.g.* Pāli, the language of the Theravada-Buddhist canon), social status (*e.g.* Latin in the Middle Ages), or some combination of these factors.

In archaeologies of identity, the study of different identity domains is often restricted by the visible remnants available. For example, age and gender categories are most clearly visible in the archaeological record in combination with human remains for which age or sex can be determined. Hence, there is a focus on costume elements, such as jewellery, or differences in burials between males, females and other diverse individuals when it comes to these domains. However, archaeologists can also address less obvious domains of identity. For example, with the aid of ancient DNA analyses it was possible to determine that four people buried together in a single grave at Eulau in Saxony-Anhalt were genetically a nuclear family consisting of the mother, the father and their two sons (Meyer *et al.* 2012).

Identity parameters

Stereotypical associations thus play an important role within the dynamics of conscious and subconscious acts-of-identity. Connected to this, and mainly drawing on concepts developed in anthropology, feminist thought, and queer theory, the idea of bounded individual identity based on the physical biological entity of a (human) person has been increasingly contested over the last decades. An important concept introduced by Judith Butler in her works on gender is that of the *performativity* of identities (Butler 1990). *Regulatory ideals* inherent in a group or society put down the baseline for how identity operates. These can, *e.g.*, encompass basic concepts of what is appropriate and/or typical for certain groups, *e.g.*, dress codes for women and men, haircuts, and social behaviours, for example, of children vs. adults.

As the application of these ideals is performative, it not only marks identities but also creates and reinforces them. For example, a specific burial rite in which

the deceased is furnished and interred in an appropriate way for all of their roles and functions reinforces the stereotypical associations by performing and thus recreating them. This, in turn, means that identities can be seen as the outcome of the dynamic interplay of regulatory ideals and the related stereotypical associations, and not of (biological) individual predispositions.

A specific effect of the performativity of identities is their embodied dimension: Physical structures of the body can be shaped by the actions and practices performed by it, which in turn are influenced by the regulatory ideals that streamline actions (Soafer 2006). For example, this can encompass physical effects of constant hard work, of regular horse riding, of food cultures and dietary rules, and of mobilities. Thus, the history of the body itself is closely interconnected with the performativity of identities, and this is a field that is at least partially accessible to archaeology.

Drawing on anthropological cross-cultural comparison, the concept of people as bounded individuals has been identified as a stereotype in western perception, and it has been placed into a wider and more diverse context by numerous examples of differently constructed self- and group-identities from ethnography. Diverse alternative understandings of personhood are possible, especially with respect to the relational aspects of identity (*e.g.* Fowler 2004). For example, in her study of contemporary Melanesian society, Marilyn Strathern shows that persons are not first and foremost indivisible *individuals*, but in many respects divisible *dividuals*, emerging and constantly developing and changing through dynamic relationships with other people and also with the non-human world, *e.g.*, through gifts to others, such as breast milk, valuable artefacts, *etc*. (Strathern 1988). In this sense, people and their self-identities are defined by their relationships with others (Harris and Cipolla 2017, 63). An important though contested concept promoted by Strathern based on these studies is that personhood, according to such an understanding, is actually not limited to humans but can be expanded to other things and beings.

Thus, these concepts of the performativity of identity, of the role of regulatory ideals in it, and of the connected complex notions of what personhood can be, are highly relevant for archaeological interpretations of identity and its material footprint. They open up alternative conceptual backgrounds in order to assess past foreign societies, which were different from our current individualistic understanding of person and society, rooted in dualisms such as nature-culture and human-environment and which is – as a specific historical situation – progressively dominating our increasingly globalised world.

Case studies

The following three case studies from the authors' own research – one linguistic case study, one primarily archaeological case study and one which combines these two fields – illustrate some of the categories discussed in the previous sections in somewhat more detail.

Case study 1: Socio-linguistic dynamics and identities in Central and Eastern Europe

The present case study serves to highlight two examples of conscious acts-of-identity within and for groups in which language is used to project a specific identity within specific domains.

The first example deals with German, which was officially introduced by Habsburg rulers in 1626 into the Czech part of their empire. In the 17th and 18th centuries, Czech receded and became primarily the language of the rural population, servants and craftsmen in certain cities in some areas, while other areas became completely German-speaking. Self-identification had a primarily political or geographical basis in terms of being a citizen of the Habsburg Empire or – in a narrower sense – a citizen of the Bohemian part of it. The mother tongue of the inhabitants was not insignificant, but certainly a secondary feature of self-identification, mostly connected to the lower social status in contrast to the upper classes who spoke German. It is only towards the end of the 18th century and the first half of the 19th century that interest in the Czech language began to resurface. The most important event leading up to this resurgent interest was the publication of a Czech grammar by J. Dobrovský in 1809 written in German with the title *Ausführliches Lehrgebäude der böhmischen Sprache zur gründlichen Erlernung derselben für Deutsche, zur vollkommenern Kenntniß für Böhmen* (Dobrovský 1809/1940), which served as the foundation of a large (and successful) revitalisation effort. Since a learned grammar alone, even if composed by a scholar of European reputation at the time, was not sufficient to revitalise a language, a group of influential patriots popularised Dobrovský's grammar and accompanied it with "patriotic" propaganda, *e.g.*, the foundation of a Bohemian national museum (in 1818), the publication of forged, supposedly medieval Czech manuscripts (discovered in 1817 and 1818), scientific journals in Czech (*e.g.* Journal of the National Museum starting in 1827), *etc*. These efforts resulted in a vast improvement in the standing of the Czech language and loosened its ties to a particular social status. At the same time, language was reinterpreted as a political and "ethnic" or "national" symbol, distinguishing speakers of Czech as the "real" or "original" inhabitants from speakers of German as foreign intruders. But it was not until the late 19th and the early 20th century that Czech replaced German completely as the marker of political (and "ethnic" in the sense of "national") identity.

Another example is the change of the linguistic marker of the group identity of the social "elite" in East Slavic areas (modern Russia, Belarus and Ukraine) from (Old) Church Slavic, also known as "(Old) Church Slavonic", or German and French to Standard Russian. The Christianisation of the early East Slavic population in the 11th century brought Old Church Slavic – genealogically a South Slavic language – as the language of the church and, later, the language of the East Slavic elite from the Balkans. Initially, Old Church Slavic may have been rather strange or foreign for Eastern Slavs, although to a certain extent intelligible. Over the following centuries, different changes in both languages made them become more distinct from one another. Mutual intelligibility decreased despite a large number of lexical and grammatical borrowings from Old Church Slavic into East Slavic and penetrations of East Slavic features into the Church Slavic of the east. The originally religious language developed into the group-identity marker of the local church and secular elites. This situation of *diglossia* lasted until around 1700 CE (Uspenskij 1987, 20-21), when Tsar Peter the Great brought the idea of a written vernacular back from his journey through Western Europe. The tsar himself restricted the use of Church Slavic to religious affairs and ordered the use of Russian in all "worldly" matters.

Since secular elites had used Church Slavic as their "status language", Peter the Great's restriction of Church Slavic to the religious realm created a kind of linguistic vacuum in his empire which was consequently filled by foreign languages:

The educated chose to speak (and write) German (especially in the administration and the military) and/or French (with respect to "high culture"). There are also quite a few cases of Russian nobility not being able to speak Russian well during the 18th and 19th centuries – cf. Fleckenstein's remark about French being the cultivated everyday language of the Russian nobility by the end of the 18th century in Eckert *et al.* (1983, 217). After a period of experiments with secular literature, it was not until the end of the 18th / the beginning of the 19th century that several writers (N. M. Karamzin, A. S. Puškin)[5] managed to create a "new" Russian. This form of Russian was clearly a compromise between the Moscow vernacular (East Slavic) and Church Slavic (South Slavic), which was also influenced by western languages (especially French and German), although standardising grammars did not yet appear at this time. A general system of education (which established a standard variety of Russian) was not set up until after the communist takeover in the 1920's. This development illustrates the formation of modern Russian as a koiné language (cf. the discussion above). The two source languages functioned as social markers of identity, with the resulting "new" Russian language being a new marker of a "national" identity encompassing all social layers.

Case study 2: Mortuary rites, geographic origins and identities in Bronze Age Slovakia

At the Early Bronze Age cemetery of Jelšovce, Slovakia, individual burials presented a connection with other, *e.g.*, non-local groups in a number of different ways from body position within the grave to grave goods. When looking solely at the burials, there appear to be mainly traditional local burials and a few divergent burials with elements from more distant groups that first suggested that these individuals were foreigners and that this element of their identity was highlighted in their graves. However, a strontium isotope study, which was able to determine whether the deceased were born, raised or died geographically close to the area of the cemetery, revealed that these local vs. foreign identities are far more complex than they first appeared (Reiter and Frei 2015). It thus appears that a person's "true" origins were less important to their identity in death than we might have assumed.

For example, the man in grave 444 was buried in a 'frog' position (supine with knees splayed and feet together), more common in the Ukrainian Steppe region at the time, in contrast to the traditional position (a crouched position lying on one side) for graves of the Nitra period to which he dates (Reiter and Frei 2015, 126). Archaeologically speaking, this man could be considered to have had a foreign identity at death. Yet, a strontium isotope analysis of his bones revealed that for the final 15-20 years of his life, this man lived in an area local to the burial ground; therefore, in his case this link to a foreign group either harks back to his earlier life or his "foreign" burial position holds a different significance.

One sign that a non-local burial identity at this site might not be directly related to expressing a foreign identity based on geographical origins is that there are also two burials where foreigners (isotopically) were buried with foreign goods from a region that was not that of their geographical origins. The women in graves 110 and 190A were each buried with an obsidian blade; objects foreign to the site, yet also to the areas indicated by their strontium ratios (Reiter and Frei 2015, 126).

5 In this paper, we transliterate Cyrillic according to the DIN norm.

Why might a foreign identity be highlighted, outside of being part of how a person defined themselves? For the case of the woman from grave 80, whose strontium ratio from tooth enamel shows that she had been living in an area local to the site since her childhood but was buried with non-local ceramics from the area of modern-day Hungary, it has been argued that the use of exotic goods is a marker of status rather than geographic origins (Reiter and Frei 2015, 126). Access to foreign goods was apparently considered to have been an element of this woman's life that was important enough to be displayed in her burial.

This is likely related to the fact that communities across the Eurasian continent became more connected during the European Bronze Age, allowing individuals to more frequently come into contact with other, non-local individuals and even wider networks of material culture. Burials, in particular, allow archaeologists to see how these new contacts affected individual (if not necessarily self-) identities as well as wider social reactions to this opening of social worlds.

The processes of cultural synthesis and adoption were at work when isotopically local individuals were buried with non-local objects (in the merging of local and non-local cultures or the acceptance of non-local traditions/material culture by locals, respectively), whereas sublimation (in the sense of transformation into an idealised form) occurred when an isotopically non-local individual was buried in the local manner with no indication of their differing geographical origin (Reiter 2014, 18). These represent insights into identities that were in use within the community of the deceased.

Both individual and group identities can be seen in prehistoric burials, but through the lens of how the deceased individuals were perceived by the community that buried them. In this particular cemetery, joining the community later in their life was not necessarily important for how that individual was presented in death. Being local or foreign may have been a more performative element of identity than a category assigned based on one's geographical origins.

Case study 3: Maintaining Taz Selkup identity in Western Siberia

Contrasting roles of material culture and language in the negotiation and expression of identity are demonstrated by the Samoyed group of the Taz Selkup in Western Siberia. As a mobile hunter-fisher-reindeer herder community, the Selkup migrated from the southern to the northern taiga in the 17th and 18th centuries CE (Golovnev 1995). This relocation history enables us to trace socio-economic adaptations to the new region and their recursive effects on the further development of the Selkup ethnic identity within the framework of material culture, language and toponyms, self-perception, and inter-group relations (Piezonka *et al.* 2020).

There are a few main family groups based on totemic clan structures that are historically associated with different tributary catchments of the upper Taz area. Exogamy with other ethnic groups (*e.g.* Evenks, Kets, Russians, Khanty) have led to "terribly international, almost cosmopolitan conditions", as the Finnish scholar Kai Donner observed in 1912. As an example, Donner describes a man, whose mother was an Evenki woman, his father a Khant, and his wife a Ket, who spoke Selkup at home but was also fluent in all these other languages (Donner 1926, 152). This inter-ethnic ambiguity continues today, as many people who consider themselves Selkup have a parent or one or more grandparents from other ethnic communities. Thus, (personal) ethnic identity among the Taz Selkup forms

a continuum between Selkup self-perception and trans-ethnic kinship relations; it is influenced by factors such as family background, marriage relations and language use. The Selkup identity is sometimes only developed after childhood and adolescence when returning to the taiga and adopting a mobile hunter-herder way of life within the Selkup extended family group and, in connection with this, a more intense relationship with and command of the Selkup language (field recordings by Vladimir Adayev and Henny Piezonka 2017). In the case of the Taz Selkup, language forms a major means in maintaining, enacting and consciously strengthening ethnic identity. While children are mainly taught in Russian at boarding school, in several Taz Selkup families conscious efforts are now made to teach the children the Selkup language in order to preserve their Selkup identity.

While language continues to play a central role in consciously upholding Selkup identity (Tučkova *et al.* 2013, 281), other aspects which were formerly linked to a specific Selkup identity, including cosmology and associated rituals (including burial rites, but also fairy tales and stories), have changed in the north under the influence of neighbouring groups to a more general Arctic culture (Donner 1926, 152). Material culture has increasingly lost its function as a (conscious) identity marker; among the Northern Selkup, ethnic costumes and ornaments have now virtually disappeared from everyday life and are only worn on festive occasions. Also, typologies and technologies of functional items, such as sledges, show the influence of other northern peoples, *e.g.,* the Nenets, and have lost all stylistic connections to the forms used by the Southern Selkup in their former, southern homeland.

The temporary dwellings used by the mobile Selkup hunter-fisher-herders in the upper Taz region until today are interesting as they point out the dangers of interpreting structures and boundaries of social groups based solely upon the remains of their material culture. Stylistically, these dwellings reflect the combination of habitual persistence of assertive stylistic elements with the pragmatic adoption of new, northern forms. A hybrid type that developed in the north is the earthen winter house that combines southern Selkup/Khanty house building traditions with features of northern Samoyed conical tents. The Entsy and forest Nenets, who settled the wider region before the arrival of the Selkup migrants, used only tipi-like tents but no winter earth houses. Earth houses with sunken floors, on the other hand, were a wide-spread dwelling type of the Southern Selkup, and also of the Khanty settling the middle Ob' region between the southern and northern Selkup areas.

The Selkup newcomers to the Taz brought this southern earth house building tradition with them when they migrated northwards and continued to erect such houses at their winter stations (Adayev and Zimina 2016). However, due to an increased mobility that is connected to the uptake of reindeer husbandry in the north, the winter houses developed into simpler and easier-to-build forms. The sunken floors were lost altogether and the interior layout changed from the complex southern style, with a clay oven by the wall and asymmetrically arranged earthen sleeping benches along the walls, to a simple symmetrical ground-level layout resembling that of the symmetrical tent.

This has two main implications concerning identity and its archaeological recognisability: (1) In contrast to the observation that migrant newcomers would often adapt the external domain to the common ways in the immigration area, while preserving assertive, habitual styles in the interior (Burmeister 2000, 542; Burmeister 2017), the contrary seems to be the case with the Northern Selkup. Here, the interior is adjusted pragmatically and modelled on what is common in

the immigration area, while the imported architectural form itself, the earthen dwelling that is alien to the north, is preserved and continued. (2) From an archaeological point of view, the importation of the Selkup earth house as a distinct southern dwelling type into the north, as well as its further stylistic development, would be recognisable archaeologically, given the necessary data density.

Unlike in the south, where kurgan burials dominated, burial customs among the Northern Selkup became rather diverse and included surface, below-ground, and air burials; the practice of cremation is also documented (Poshekhonova *et al.* 2018). Nowadays, Russian-style burials in grave pits are the most common type, albeit with the specific custom of placing the possessions of the deceased on the ground beside the grave, where they are henceforth left untouched. Some of the above-ground structures find parallels in Khanty burial customs further south. Air burials represent an element which is especially widespread among the Nenets, Evenki and other northern groups.

In summary, with regards to the materials and methods available to archaeologists, the territorially distinct and strongly developed ethnic self-identification of the Taz Selkup community, which is expressed, *e.g.*, by the conscious maintenance of the language, would be more or less invisible archaeologically. The material culture has evolved further in their new northern home, adapting to the new environmental and economic conditions by adopting suitable styles and types from other northern groups, no longer containing any clear, conscious material identity markers. This also concerns the hybrid character of the burial customs. Due to the lack of further material, emblematic identity markers, and the archaeological invisibility of the main field of northern Selkup identity enactment – the language itself – it is questionable whether the Selkup migration and the persistence and further development of a distinct northern Selkup ethnic identity could be recognised, or even suspected, on the basis of archaeological evidence alone. Instead, this ethnic community would most probably not be recognised as a distinct group, but would be archaeologically diluted in a material continuum of regional styles, hybrid items, and adaptive solutions.

Discussion and outlook

This paper is a first attempt by the present group of authors – and to our knowledge the first of its kind – to compare and contrast the notion of *identity* and its various components in the fields of archaeology and linguistics with the hope that this can serve as a springboard for future interdisciplinary collaboration on this topic. It has therefore raised many more questions and potential avenues for investigation than it has provided answers. As such, we would like to suggest some commonalities and interfaces between the study of identity in linguistics and archaeology that our discussion has brought to light.

Synthesising the cross-disciplinary account above, we have seen that identity expression can be conscious or subconscious (Fig. 1). Expressions of identity can also be enacted (verbally and non-verbally), embodied, and materialised. Linguistics and archaeology have different access to these realms of identity expression: Linguistics has access to the verbal part of enacted identities. Archaeology, on the other hand, has access to material expressions and, through a collaboration with physical anthropology and archaeometrics, also to certain embodied expressions (conscious: *e.g.* skull flattening; subconscious: *e.g.* health status, access to certain foods/food tabus, *etc*.).

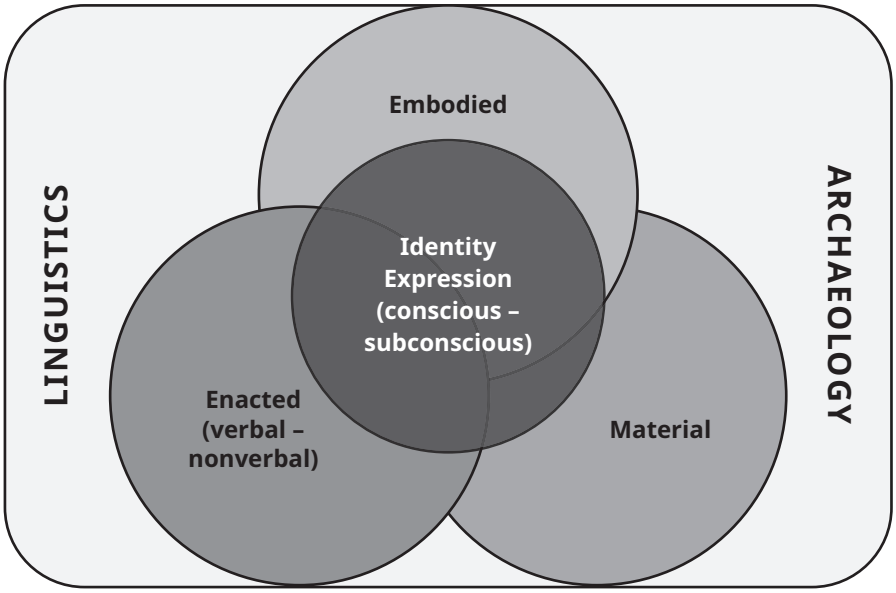

Figure 1. Scientific access to enacted, embodied and material identity expressions through linguistics and archaeology (diagram: the authors).

Archaeologists have a long tradition of co-opting concepts from other disciplines in order to increase the potential ways in which they can fill gaps in the archaeological record and interpretative limitations. When it comes to the topics discussed here, emblematicity and code-switching have already been touched upon in archaeological inquiry. A number of other concepts discussed here relating to group identities have also already been incorporated by archaeologists in their work, especially in the fields of ethnoarchaeology and historical archaeology, where some element of language is accessible to archaeologists (in addition to the examples in this paper, see also, *e.g.*, Hodder 1982, Blench and Spriggs 1997; 1998; 1999a; 1999b; Anthony 2007; Blench 2017). Direct collaborations between linguists and ethnoarchaeologists could thus expand upon this theme, potentially identifying interlinked linguistic and material patterns that could perhaps be applied to archaeological research even in the absence of any knowledge of the contemporary language. The direction of identification in the examples and case studies discussed here is more inwardly focused and linked to projected identity, but given the communicative role of language and the visual nature of artefacts related to costume or style, it is likely the case that there are aspects of how such emblematicity is perceived by other groups.

Code-switching has also been applied to material culture, especially from the ancient Mediterranean area, where information about language use of the time is available (*e.g.* Wallace-Hadrill 2008 on Roman cultural identity; Winther-Jacobsen 2013 on the similarity between a conversation and a burial as acts of identity; Revell 2013 on performative Roman and pre-Roman ethnic identities). The notion of switching between different "assemblages" or "repertoires" available to an individual (whether material or linguistic) to fit the current context and the most appropriate identity in that moment is certainly an interesting element of human behaviour, past or present (Schneeweiß 2020, 46-47). Future collaboration here could, *e.g.*, focus on similar aspects of "switching", "fused lects" or "polylanguaging" with respect to material culture, for example, possible group identity defined through the acceptance of material culture associated with two or perhaps several different social groups as a possible expression of a new, unique, perhaps even cosmopolitan identity.

Further potential areas of collaboration could include possible material parallels to linguistic ideology, language planning and notions of linguistic purity, *i.e.*, well-known, conscious attempts found throughout the world today to make language fit into a pre-defined identity which does not yet exist but is propagated as necessary, correct, or "pure", and attempts are made to enact it to make reality fit the aspired identity.

Linguistics as a field also has much to gain through collaboration with archaeologists working on aspects of identity in pre-modern societies. The most obvious benefits would certainly be in the field of historical linguistics, in which, *e.g.*, the traditional comparative method is highly constrained by the time-depth of the oldest extent texts for a particular language family or region. Although language typologists can go back somewhat further in time, in the end we are merely left with data for structural features of various languages and their geographical spread which await further context from other fields – such as archaeology.

Knowledge of the way members of earlier societies identified themselves can also help historical linguists avoid potential pitfalls. For example, although the abrupt, widespread introduction of a new style of pottery into a region could be due to the arrival of a new ethnic group with a new language in a particular region, this could also be a false conclusion with serious consequences. Here, more informed studies of the potential material expression, or the lack thereof, of identities of the members of such societies by archaeologists ethnoarchaeologists could provide linguists, for example, those working within the newly formed field of sociolinguistic typology (*e.g.* Trudgill 2011), with critical information about the social make-up of these earlier societies, their likely degree of multilingualism or relative isolation based on their material culture, *etc*. Sociolinguistic typologists would then be in the position to interpret this societal information more cautiously with respect to potentially related linguistic developments, which could then possibly lead to an identification of the respective language(s).

A related field of inquiry, which would strongly benefit from intensified interdisciplinary dialogue between linguistics and archaeology, concerns the identification and localisation of "protolanguages" with the reconstruction of subsequent language developments and dispersals. The above-mentioned pitfall of indiscriminately equating language groups with groups of ethnic self-identification and extrapolating such presumed associations onto patterns in material culture as expected expressions of such postulated groups ("pots equal people") can thus be avoided and replaced with better-informed, more comprehensive discussions of this multi-facetted field. Novel multi-disciplinary studies on bio-cultural co-evolution that integrate studies in linguistic, cultural and biological trajectories (*e.g.* DFG Center for Advanced Studies 'Words, Bones, Genes, Tools', Tübingen) are a positive step in this direction. For example, we would expect to find a slow, gradual complexification of a language's phonological and/or morphological systems to result from a situation of relative isolation of a small ethnic group speaking a single language, whereas a language with a large number of adult second-language learners in a highly cosmopolitan society would likely result in a strong simplification in these two areas of the grammar. Such information, which would otherwise likely remain undetected, could be of great value in identifying with at least some degree of certainty the respective language(s) from among any later languages of this region for which such grammatical information is known.

While this may seem somewhat abstract at the moment, as the present cross-disciplinary research program progresses one thing seems certain: the

benefits for both linguists and archaeologists will soon exceed the short list mentioned here, extending beyond the intrinsic potential of a better understanding of just what constitutes *identity* and thereby allowing us to find simplicity and meaning in a complex world.

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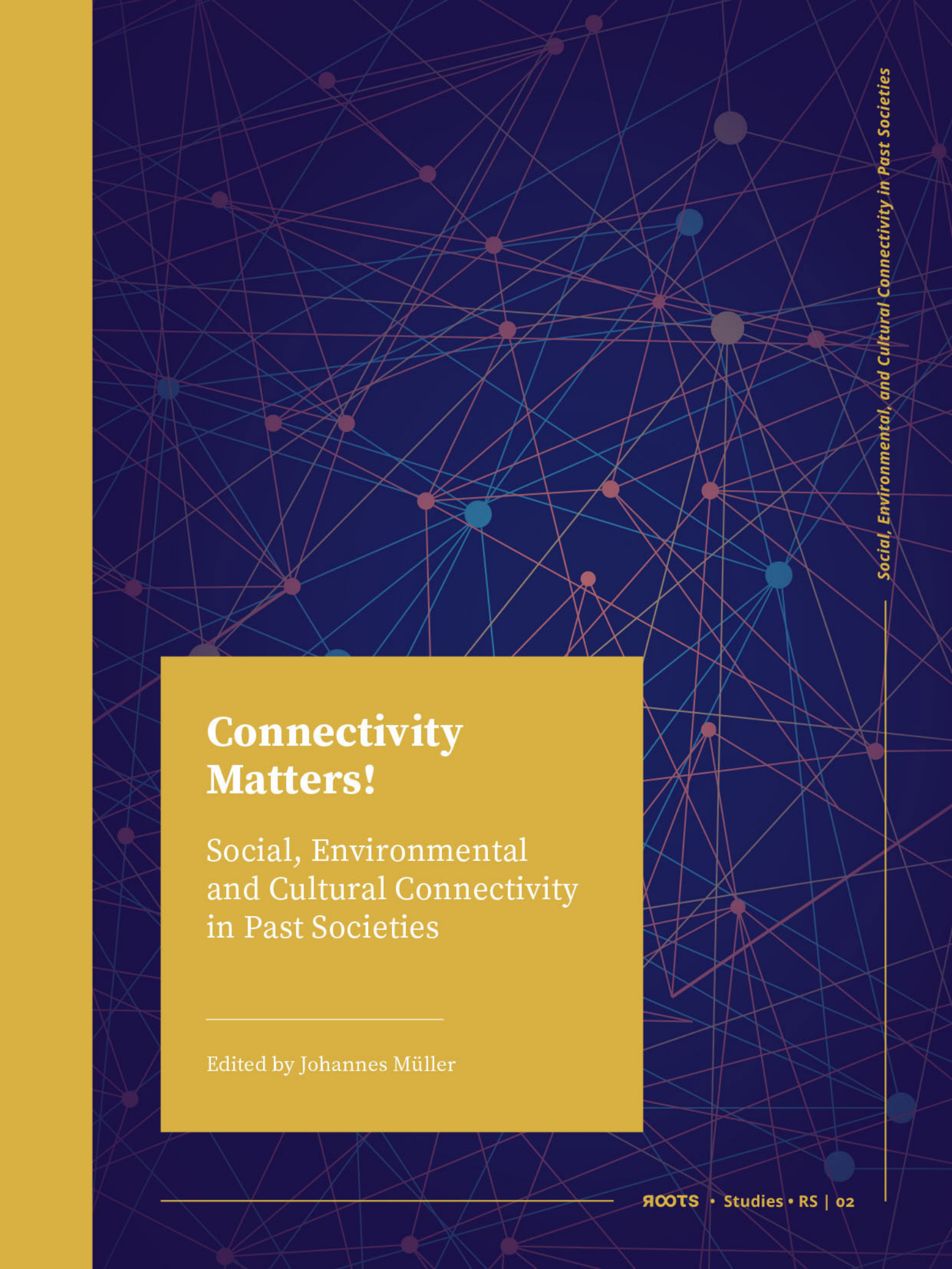

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Preface of the series editors

As the outcome of overarching, interdisciplinary scientific research efforts within the Excellence Cluster 'ROOTS – Social, Environmental and Cultural Connectivity in Past Societies' at Kiel University, we are pleased to introduce the second volume of the publication series **ROOTS Studies**. This book series of the Cluster of Excellence ROOTS addresses social, environmental, and cultural phenomena as well as processes of past human development in light of the key concept of "connectivity" and presents scientific research proceeding from the implementation of individual and cross-disciplinary projects. The results of specific research topics and themes across various formats, including monographs, edited volumes/proceedings and data collections, are the backbone of this book series. The published volumes serve as a mirror of the coordinated concern of ROOTS researchers and their partners, who explore the human-environmental relationship over a plurality of spatial and temporal scales within divergent scientific disciplines. The associated research challenges revolve around the premise that humans and environments have interwoven roots, which reciprocally influence each other, stemming from and yielding connectivities that can be identified and juxtaposed against current social issues and crises. The highly dynamic research agenda of the ROOTS cluster, its diverse subclusters and state of the art research set the stage for particularly fascinating results.

The new book in the series is a presentation of the basic concept of social, environmental and cultural connectivity in past societies, as embodied in a diversity of disciplines in the Cluster of Excellence ROOTS. Thus, rather pragmatically

driven ideas of socio-environmental connectivities can be found at the beginning, which formed the basis of the Cluster of Excellence in its research application. A discussion of the fluidness of the term connectivity and the applicability of the concept follow in another contribution. With various case and concept studies, we then advance into the perspectives that develop from the new interdisciplinary interaction. These include both rarely considered dependencies between nomadic and urban lifestyles, and aspects of water supply and water features, which represent an area of connectivity between the environment and agglomerated human settlement structures. In addition, diachronic aspects are presented in various studies on the role of connectivities in the development of social inequality, the use of fortification, waste behaviour, or the creation of linguistic features in written media. The contribution on linguistics and archaeology basically comments on the question of interdisciplinary connectivity of the two disciplines and the resulting perspectives. In sum, facets of connectivity research are revealed that are also being investigated in numerous other disciplines with further results in the Kiel Excellence Cluster ROOTS.

The editors of the ROOTS Studies series would like to take the opportunity to thank those colleagues involved in the successful realisation of the second volume. We are very grateful for the detailed and well-directed work of the ROOTS publication team. Specifically, we thank Andrea Ricci for his steady support and coordination efforts during the publication process, Tine Pape for the preparation of the numerous figures and the cover design and Eileen Küçükkaraca for scientific editing. Moreover, we are indebted to the peer reviewers and our partners at Sidestone Press, Karsten Wentink, Corné van Woerdekom and Eric van den Bandt, for their support and their commitment to this publication.

Kiel, March 2022
Lutz Käppel, Johannes Müller, Wolfgang Rabbel

Contents

Preface of the volume editor

In the fast-paced development of scientific methodology and theory, there are hardly any constants left, particularly in the humanities, which have existed and been recognised as viable concepts over many decades. Moreover, there is a diversity of the various scientific schools, distributed regionally and continentally, which develop ideas and concepts partly independent of each other. This fundamental situation has not changed much in light of the dominance of the English-speaking language in the "Western world".

It seems all the more surprising to me that the concept of connectivity not only necessarily tears down disciplinary boundaries. But that here, in particular, by linking many facetted aspects from ecological and climate spheres, and from cultural and social aspects of societies, they can be combined to form a basic element through which the interaction in and between human societies and resilient behaviour towards the environment can be experienced and explained – in the best case with sustainable consequences.

Connectivity is something that is comprised of the basic elements of human action, which includes, among other things, sharing and competition. It is something that establishes the ecological parameters of societies as determining factors for social developments, but also vice versa. At the same time, traditional terminologies dissolve, e.g., the concepts 'rural' and 'urban' are inseparable, just as the natural and cultural environments or even matter and spirit.

In this respect, 'connectivities' constitutes an exciting topic, the academic localisation of which is attempted in this book. We would like to thank the authors

for their contributions as well as Eileen Küçükkaraca for scientific editing, Tine Pape for technical editing and Andrea Ricci for coordination efforts in the background. As is often the case, working with Sidestone Press went as smoothly as ever. Thanks are also extended to the DFG for funding in the framework of the Excellence Cluster 'ROOTS – Social, Environmental, and Cultural Connectivity in Past Societies' (EXC 2150 ROOTS – 390870439).

Kiel, March 2022
Johannes Müller