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Grapholinguistic wars: negotiating disciplinary identity through scholarly disagreement

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ABSTRACT

This article offers a historiographic analysis of the development of grapholinguistics – a still-evolving field dedicated to the study of writing systems – through the lens of scholarly disagreement. Focusing on four key disputes since the 1990s, it examines how debates over structure, cognition, typology, and abstraction reflect competing conceptions of what writing is and how it should be studied. Drawing on work in the historiography and philosophy of science, particularly on the role of disagreement in shaping disciplines, the paper argues that such tensions are not symptomatic of fragmentation but can offer insight into the negotiation of a field's core conceptual foundations. Each dispute is analysed in detail and then compared along four analytical dimensions – terminology, typology, evidence, and domain – revealing broader epistemological divergences between empiricism and formalism, methodological caution and theoretical ambition, and dependency and autonomy. The paper proposes that moments of conflict reveal neuralgic points in a field's formation and help trace emergent (dis-)alignments. It thus contributes both to the reflexive history of linguistics and to the intellectual self-understanding of grapholinguistics.

1. Introduction

Grapholinguistics – the interdisciplinary study of writing systems and literacy – has gained momentum in recent years, evidenced by dedicated publications (such as Neef, Sahel, & Weingarten 2024) and international conferences. Bridging fields such as linguistics, semiotics, typography, literacy studies, and cognitive science, it investigates how writing evolves, is structured, encodes language, and functions in diverse communicative contexts (see Meletis & Dürscheid 2022).

Despite this growing visibility, grapholinguistics remains a field in formation, with its theoretical and methodological foundations still under negotiation. What makes it distinctive is not only its relative youth but its epistemic liminality: it cuts across traditionally separated (linguistic) domains, from form and structure to materiality and practice.

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This paper approaches grapholinguistics as a historiographic object. Rather than offering a chronological survey, it reconstructs a series of scholarly disputes as windows into disciplinary self-fashioning (Anzola 2021; Dellsén & Baghramian 2021). Following Swiggers' (2010) typology of metahistoriographic work in linguistics – constructive, critical, and contemplative – this paper adopts a reflective stance: not to resolve the debates in question, but to consider what they disclose about the field's assumptions, boundaries, ambitions, and self-image.

While disagreement is often seen as a sign of fragmentation or failure, recent work in the philosophy of science complicates this view. As Seidel (2021) notes in his reading of Thomas Kuhn's influential work on scientific revolutions (Kuhn 1962), certain disagreements reflect incompatible paradigms, while others reveal tensions in how theoretical values such as simplicity or explanatory scope are weighted. These differences need not be irrational; rather, they may reflect deeper disagreements over what counts as worthwhile research. In the case of grapholinguistics, some disputes centre on foundational definitions, while others turn on questions of pursuit-worthiness (Lichtenstein 2021), focusing on which problems to prioritise. This aligns with historiographies of linguistics that address not just ideas but the conditions of their production and contestation (Koerner 1995a, 1995b).

In this sense, disciplinary formation is not a by-product of consensus but emerges through disagreement. 'Grapholinguistic wars' deliberately echoes the generative 'Linguistics Wars' of the 1960s and 70s (Randy R. A. Harris 2021) and signals that what is at stake here is not peripheral detail, but the scope, methodology, and object domain of the field itself. Crucially, unlike disputes that took place within well-established paradigms, the debates discussed here unfold in a field still lacking conceptual cohesion and institutional anchoring.

Such friction is not pathological but a sign of epistemic vitality. As Shaw (2021) argues, persistent disagreement can function as a safeguard against 'premature closure'. Rather than indicating confusion or lack of progress, it allows frameworks to be stress-tested, assumptions to be surfaced, and categories to be renegotiated. This makes grapholinguistics particularly revealing for the historiography of linguistics (as outlined in Koerner 1995b): its contested emergence allows us to observe in real time how a field defines its problems and constructs its intellectual identity.

The four disputes examined in this paper are chosen for their conceptual diversity and historiographic value, which is based on their conceptual breadth, the availability of published exchanges, and their potential to illuminate wider disciplinary dynamics beyond individual languages or contexts.[1] The first (Daniels vs. Herrick) turns on the linguistic status of writing and the possibility of a structural graphemics. The second (Brekle vs. Watt) examines the explanatory value of abstract cognitive forces in modelling the diachronic development of letterforms. The third (Rezec vs. Primus) scrutinises the risks and rewards of formal decomposition and constraint-based modelling. The fourth (Unger vs. Handel) interrogates the value of typological labels and the ideological risks embedded in system-level classifications. Though disparate in focus, these debates reveal

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[1]Other debates – such as those concerning sharpening in German orthography (see Ossner 2001a; Neef & Primus 2001; Ossner 2001b for a specific exchange) or the explanatory value of so-called 'orthographic principles' (see for an overview Kohrt 1987: 503–518) – are equally instructive but arguably more specific and context-dependent.

recurring tensions – between abstraction and empiricism, between innovation and caution, and between local analysis and general theory.

The next section provides context about grapholinguistics as a nascent discipline. The sections after that analyse and reflect on four case studies of scholarly disagreement and analyse their commonalities. The conclusion draws implications for both the historiography of linguistics and the reflexive understanding of emerging scholarly fields.

2. From margins to emergence: grapholinguistics as a discipline

It is a truism that writing has long occupied a marginal position in linguistics. While it has permeated the discipline as a medium – from transcriptions to theoretical treatises – it has rarely been afforded the status of a legitimate object of linguistic inquiry in its own right. The development of a coherent field devoted to writing systems has thus occurred belatedly and under contested terms. This section sketches the emergence of grapholinguistics and its current disciplinary status, with particular emphasis on its German-language roots, terminological contestations, as well as historiographic blind spots. It sets the stage for the subsequent analysis of scholarly disputes.

2.1. From reform to research: German Schriftlinguistik

The foundations of modern grapholinguistics were laid in German-speaking academia from the 1970s. A key contextual factor was the existence of an officially regulated orthography for German, established in 1901 and binding for schools and public institutions. This, crucially, created both the practical need and the institutional feasibility for systematic reform efforts, which, in turn, catalysed research on writing. However, what began as applied linguistic work on how to regulate and reform German orthography increasingly developed into a general theoretical engagement with writing as a linguistic object. Two major research groups institutionalised this momentum: the *Forschungsgruppe Orthographie* in the GDR, founded in 1974 under Dieter Nerius (Nerius 2013), and the *Studiengruppe Geschriebene Sprache* in the FRG, founded around 1981 and including key figures such as Hartmut Günther, Peter Eisenberg, and Florian Coulmas (Günther 1993). While their primary orientations differed – East German research emphasised practical reform, while West German scholars leaned towards theoretical abstraction – both groups contributed to establishing *Schriftlinguistik* as a recognisable subfield.[2] Notably, the term itself was introduced at the XIVth International Congress of Linguists in Berlin in 1987, where Nerius and Gerhard Augst organised a roundtable on written language (Meletis 2024a). An orthography reform was eventually implemented in 1998, triggering intense public debate and renewed academic interest. This period saw a surge in dissertations, publications, and teaching in *Schriftlinguistik*. Key publications such as, in a first phase, the three-volume *Bibliography on writing and written language* (Ehlich, Coulmas, & Graefen 1996) and the two-volume handbook *Writing and its use* (Günther & Ludwig 1994/1996) as well as, ushering in the gradual emancipation of a subdiscipline, Christa Dürscheid's *Einführung*

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[2]Scholars from Austria and Switzerland were also involved in these reform-driven research efforts, contributing to a broader Germanophone engagement with writing.

in die Schriftlinguistik (first published in 2002, reaching its fifth edition in Dürscheid 2016) and more recently the terminological dictionary *Schriftlinguistik* (Neef, Sahel, & Weingarten 2024) have consolidated the field's status as a distinct area of linguistic inquiry in the German-language region.

At the heart of the developments of *Schriftlinguistik* was a fundamental theoretical question: should writing be treated as a secondary representation of speech, or as a semiotic system in its own right? Concepts such as the grapheme, graphematics, and graphotactics were critically (re-)examined, often drawing on Prague School functionalism – particularly Josef Vachek's dual-level model (Vachek 1989). This gave rise to competing approaches of relative dependency vs. autonomy (see Meletis & Dürscheid 2022: 25–31 for the main arguments of the two approaches; see Enderle 2005 for a comprehensive analysis of the debate), many of which continue to shape contemporary grapholinguistics. While the phonocentric view – which reduces writing to a visual representation of speech (Bloomfield 1933) – was never entirely abandoned, it came to be seen within these circles as theoretically reductive, signifying an important break from dominant linguistic ideologies.

In conclusion, while certain research questions concerning writing have long existed – such as in diachronically-oriented palaeography – the conceptualisation of writing as a structured (also synchronic) linguistic phenomenon in its own right is what distinguishes the 'young' disciplinary framing of grapholinguistics.

2.2. *Naming the field, locating the boundaries*

The terminological landscape of grapholinguistics remains fragmented. While *Schriftlinguistik* has become relatively established in German-speaking academia as a label for the field (see the above-mentioned Neef, Sahel, & Weingarten 2024), its English-language equivalent, *grapholinguistics*, is still in flux. Alternatives such as *grammatology, graphology, graphem(at)ics*,[3] *graphonomy*, and *writing systems research* have been proposed but are often too broad, too specific, or already occupied by other traditions and disciplines (see Meletis 2024a). As argued elsewhere (Meletis 2021), *grapholinguistics* offers terminological coherence and disciplinary alignment, which are both needed to anchor a new subfield within linguistics (and cross-cutting other disciplines) on par with psycholinguistics or sociolinguistics. The resistance to this term, particularly in Anglophone contexts, reflects both the field's disciplinary liminality and the persistence of phonocentric assumptions (and, arguably, a scepticism towards terminology originating in non-Anglophone contexts).

Indeed, grapholinguistics is intrinsically interdisciplinary: it straddles phonology, morphology, literacy studies, semiotics, typography, education, and the cognitive sciences, among others. This interdisciplinarity enables rich theoretical cross-fertilisation but also creates vulnerability to fragmentation. The lack of institutional anchoring – no dedicated degree programmes, few professorships, limited publication venues and conferences – contributes to the sense of a field

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[3]While graphemics and graphematics are often used interchangeably, Anglo-American scholarship tends to prefer the former (by analogy with phonemics), whereas the latter is more common in German and other traditions. Only occasionally, a distinction is made: Fuhrhop and Peters (2023: 211), for example, use *graphemic* to refer directly to graphemes, and *graphematic* in the context of the graphematic system as a whole (see Meletis 2024a: 15–16).

still in the making. Recent efforts such as the journal *Written Language & Literacy* and the *Grapholinguistics in the 21st Century* conference series signal a slow shift towards consolidation. This ongoing expansion of grapholinguistics brings with it a familiar challenge in disciplinary formation: determining a scope that is inclusive enough to accommodate diverse approaches, yet specific enough to sustain a shared discourse.

What is ultimately at stake is not only a terminological settlement, but a disciplinary self-understanding: what does it mean to study writing linguistically? What kinds of theories and methods are seen as legitimate? And how do these decisions shape the trajectory of the field?

2.3. *Comparative neglect and historiographic gaps*

Paradoxically, while writing systems are among the oldest and most enduring linguistic artefacts, the historiography of their study remains underdeveloped. Compared to other subfields which boast well-established metadisciplinary traditions (such as phonetics, see Koerner 1993) – grapholinguistics has only recently begun to reflect critically on its own intellectual history. Where historiographic accounts do exist, they are often geographically, temporally, or thematically siloed. The result is a fragmented disciplinary memory, in which entire traditions remain mutually invisible.

German-language scholarship, for instance, has produced important theoretical work on structural graphematics – such as distributional definitions of the grapheme (Berg 2019), suprasegmental hierarchies of graphematic units (Domahs & Primus 2016), and multimodular models of writing systems (Neef 2015). Yet these contributions are only sporadically engaged outside their linguistic region. Similarly, French structuralist work led by Nina Catach has had limited circulation in Anglophone or Germanophone contexts, despite its relevance. Conversely, English-language literature has foregrounded typological breadth and writing system classification (a prime example being Daniels & Bright 1996), but often with little reference to structural models of written language developed in other traditions.

This compartmentalisation has material effects: conceptual innovations are duplicated or ignored; critiques go unregistered across linguistic borders; and foundational debates remain unanchored in shared intellectual lineages. The present paper seeks, in part, to bridge this historiographic gap – not by offering a comprehensive history, but by foregrounding singular moments of disciplinary negotiation as windows into the field's self-definition. In their divergence and friction, they may reveal not exactly what grapholinguistics is – but what it is struggling to be(come).

3. Grapholinguistic wars: four episodes in disciplinary negotiation

In what follows, four scholarly disputes are reconstructed and interpreted as moments of disciplinary negotiation. Each centres on a different question, but all touch on foundational issues: what writing is, how it should be analysed, and what kinds of explanation are legitimate. The first dispute concerns the status of structural graphemics and the possibility of modelling writing analogously to phonology. The second questions whether the evolution of writing systems can be modelled through abstract forces, or whether

such theorising obscures historical contingency. The third addresses whether letterforms in the Latin alphabet exhibit systematic and interpretable visual structure. Finally, the fourth engages the typological classification of Chinese writing and the ideological dimensions of categorising writing systems as 'logographic'.

3.1. Herrick vs. Daniels: structure, representation, and the boundaries of linguistic theory

The first dispute centres on a fundamental question in grapholinguistics: can writing be analysed using the same structuralist tools and concepts as employed for the study of (spoken) language? The exchange between Peter T. Daniels[4] and Earl M. Herrick[5] in the early 1990s – in the form of talks given at LACUS (Linguistic Association of Canada and the United States) conferences and then published in respective proceedings – offers one of the clearest illustrations of this tension (at least on that side of the Atlantic).[6] Across four contributions – two by Daniels (1991, 1994) and two by Herrick (1994a, 1994b) – the debate unfolds around definitions of the grapheme, the legitimacy of structural analysis in graphematics, and the epistemological status of writing. It crystallises the conceptual rift between a representation-based view of writing and a structure-based one – between dependency and autonomy (Meletis 2020: 65–77).

Daniels' position is unambiguous. In his 1991 paper, titled *Is a structural graphemics possible?*, he promptly answers this question: 'There cannot be a structural graphemics' (Daniels 1991: 528). And this is not a statement about limitations at the time but about principled impossibility. For Daniels, writing is not a part of language proper but a *representation* of language. Furthermore, it is a *conscious* invention rather than an *unconscious* behaviour shaped by human evolution. As such, it lacks the evolved cognitive infrastructure that justifies the use of the emic–etic distinction as used in, for instance, phonology and morphology. 'Writing', Daniels states, 'is a product of human ingenuity [. . .] not human evolution', and therefore 'no attempt should be made to apply emic terminology to writing' (534). In other words, in Daniels' view, graphematic analysis cannot be paralleled to phonemics because the underlying ontologies of speech and writing are different. Emic categories presuppose unconscious, biologically grounded pattern recognition. Writing, by contrast, is taught, variable and diverse, and historically contingent. He echoes this repeatedly, also in 1994, where he claims writing is not a part of language because it is not acquired naturally: '[N]o matter how long you expose illiterates to readers and writers (or to texts and pencils), they do not turn into readers and writers: writing must be taught' (Daniels 1994: 425).

Herrick responds forcefully in his 1994 paper, whose title already sums up his position: *Of course a structural graphemics is possible!* (Herrick 1994a). He challenges both the theoretical and empirical premises of Daniels' position. On the question of cognition, Herrick argues for a 'general reasoning power' of the human brain that can

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[4]Peter T. Daniels (b. 1951) is an independent scholar of writing systems, best known for co-editing *The world's writing systems* (1996, with William Bright). He has worked extensively on script typology, Semitic epigraphy, and the terminology of writing system classification.

[5]Earl M. Herrick (1934–2010) earned his Ph.D. in linguistics from Michigan State University (1977) and served as Professor of English and Linguistics at Texas A&M University–Kingsville. His work focused on the autonomy of writing systems and the theoretical foundations of graphemics.

[6]See below for the German-language realm.

handle all types of linguistic relationships, including those found in writing. Since all humans can learn both phonologies and writing systems, and since both involve distinguishing between significant and insignificant variation, Herrick contends that there is no reason why the emic–etic distinction should not apply to writing as well (Herrick 1994a: 423). At the same time, he acknowledges that the cognitive evidence required to decisively support or refute his (or Daniels') claims is not yet available (413). This absence of empirical grounding, particularly in psycholinguistics and neuroscience, echoes a broader pattern in the field's development: foundational theoretical positions often outpace(d) the data needed to substantiate them. And even if data is available, it does not guarantee consensus (see the Unger–Handel debate below).

At the heart of the disagreement lies the grapheme – a persistent source of definitional and conceptual trouble. Daniels (1991) observes that this term is used inconsistently and should be avoided – even 'jettisoned' (534) – unless it can be supported by a fully developed graphematic theory that also accounts for concepts such as graphetics, allographs, and possibly archigraphemes (Daniels 1991: 528), which he concludes is impossible. In a view that he has reiterated time and time again (Daniels 2017: 88; 2018, 167–173), he criticises existing definitions of *grapheme* for being either nonexistent, too vague, or conceptually incoherent. Herrick, on the other hand, introduces a conceptual distinction that is reflected in the term pair *graphemic graphemes*, defined as material (in this case visual) basic units of the writing system, and *phonological-fit graphemes*, relations that capture correspondences between 'graphemic graphemes' and phonemes (Herrick 1994a: 416–417).[7] He argues that graphemic graphemes are genuine linguistic units and should be studied independently of their phonological mappings, which are only secondary. Daniels (1994: 430) acknowledges Herrick's terms but uses them to reiterate his stringent disciplinary boundary work: for him, graphemic graphemes 'are the stuff of art history and typefounding and calligraphy', while 'phonological-fit graphemes are part of linguistics'. This sharp division aims to preserve linguistics as a science of natural language, distancing it from the study of visual forms and their cultural histories and pointing to impermeable disciplinary boundaries rather than an interdisciplinary study of writing.

For Herrick, the crucial difference between writing systems and phonologies lies not in whether they can be structurally analysed but in the dimensionality of their perception (and possibly production), which, despite its relevance, he only mentions in passing: 'a spoken utterance is perceived in one-dimensional time, while a written text is perceived on a two-dimensional visible surface" (422). Indeed, the spatiality of writing (R. Harris 2005), which *ex negativo* spells out as *non-linearity* (Meletis in press-b), would become one of the features of writing that most convincingly underlines its idiosyncratic nature including its partial independence of speech (see also Ehlich 2001). It makes necessary more than the concepts that have been proposed in other productive structuralist ventures like phonology or morphology. However, this does not mean that those (such as *phoneme, allomorphy*) cannot *also* be useful – as analogues. In essence, Herrick believes writing should be analysed structurally not by analogy to phonology *in its very details*, but by finding 'the simple distinctions that function linguistically amid the free variations and other

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[7]See for the same distinction already Heller (1980).

kinds of diversity that occur in the data' (Herrick 1994b: 436).[8] This is what Herrick (1994b) also underlines when he insists that structural graphemics *does* already exist – albeit informally and often implicitly (but see below) – through the analogical application of phonological methods and concepts to writing systems. This, for him, makes terms such as *grapheme* transparent and accessible to anyone familiar with structuralist theory. He himself provides examples (Herrick 1994a: 413–415) of graphetic vs. graphemic contrast, allography, and archigraphemes as evidence that structural distinctions in writing are observable and analytically viable.

Daniels (1994: 427) appears uninterested in the materiality of writing: in a more revealing moment in the exchange, he compares typographic variation to voice quality – both of which, for him, are extralinguistic. Herrick (1994b: 436) counters this by invoking type designers' awareness that their work must operate within certain constraints: even the most ornamental fonts preserve the 'skeletons' of letterforms, which are emic. With this, he touches on the concept of *basic shape* (Herrick 1974; Meletis 2020; Rezec 2009), abstract forms which are concretely materialised by graphs – similar as to how phone classes (as found in the IPA, for example) are substantiated by concrete phones.

Historiographically, the Daniels–Herrick dispute epitomises an unresolved epistemological tension. Daniels defends a narrow conception of linguistic theory, one in which writing is derived and best analysed in terms of its relation to spoken language. Herrick, by contrast, argues for an expanded linguistic science that incorporates writing as a structured system in its own right, assuming that 'the graphemics of a language should be described entirely on its own terms, and that correspondences between the written and the spoken forms of a language are something to be described *later and separately*' (Herrick 1994a: 421, my emphasis; see, for the same argument, Eisenberg 1988).[9] Thus, for Herrick, what Daniels analyses is indeed valid, but it is a secondary object of study; it presupposes graphemic structures rather than constituting them. Daniels, on the other hand, seems to regard Herrick's focus as irrelevant or extraneous to linguistics, leading to a one-sided asymmetry: Herrick can accept Daniels' position within a broader framework, but Daniels rejects the legitimacy of Herrick's approach altogether.

If Daniels represents the sceptical gatekeeper of linguistic orthodoxy and the proponent of a strict boundary between (at least structuralist) linguistics and the study of writing systems, Herrick stands for the inclusive impulse that has since become more prominent, especially in German grapholinguistics.

Speaking of which – notably absent from the exchange is engagement with earlier work in structural graphematics, particularly from the German-language area (although Daniels 1991: 529 even mentions German scholarship explicitly), where many of the concepts debated by Daniels and Herrick had long been established and refined and the question of autonomy vs. dependency had been extensively discussed (see, for instance, Günther 1988; for a contextualisation of their dispute with respect to German *Schriftlinguistik*, see Meletis in press-a), but also French work (see Anis 1983, 1988; Catach 1988). This striking blind spot underscores the fragmented nature of

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[8]In German grapholinguistics, this view had already become known as the analogical view (Kohrt 1986; Meletis 2020)
[9]In recent works, this has been supplanted by an even stronger view: that writing must be an integral part of linguistic theories and models since in languages equipped with a written modality, it shapes the language system and the spoken modality in crucial ways (see, for instance, Berg 2019; Dąbrowska 2020).

grapholinguistic inquiry in the 20th and 21st centuries, where terminological divergence as well as disciplinary and linguistic boundaries often prevent(ed) fruitful cross-pollination (Meletis 2021).

Ultimately, this dispute encapsulates a larger question: can writing, a cultural artefact, be studied as if it were (part of) language? If so, on what terms? The Daniels–Herrick exchange does not conclusively answer these questions, but it ensures they cannot be ignored.

As for the current state of this debate, in German-speaking grapholinguistics, the autonomy–dependency debate is often regarded as largely settled. As Reinken (2022, 101) notes, even discussing the matter seems 'somewhat anachronistic, as this discussion can now be considered concluded, since hardly any graphematicians still adhere to a purely autonomous or phonographic perspective'.[10] Instead, hybrid positions prevail, acknowledging both the representational function of writing and its internal structural organisation. In contrast, within Anglo-American scholarship – especially in psycholinguistic and cognitive approaches to reading and writing – the term *grapheme* is still routinely defined as 'a small unit of written language corresponding to a phoneme' (Eysenck & Keane 2020: 444; see also Henderson 1985 for an early inquiry into the different uses of *grapheme* in psychology). This enduring definitional divergence highlights not only the coexistence of competing conceptions of writing, but also the continued fragmentation of grapholinguistic traditions across linguistic and disciplinary boundaries.

3.2. Brekle vs. Watt: letterforms, forces, and the limits of explanation

The second dispute focuses on the evolution and systematisation of Latin letterforms, negotiated in a critical exchange between Herbert E. Brekle[11] and William C. Watt.[12] Brekle's critique, published in a contribution to the volume *Writing systems and cognition*, which was edited by Watt, challenges a model introduced by Watt over a decade earlier (Watt 1983). At stake is the plausibility of a (more or less) systematic model of how the shapes of Latin letters developed – a question that exposes deeper tensions about explanatory scope, interdisciplinarity, and, again, the very nature of writing as an object of – not only linguistic – analysis.

Brekle's 'forceful attack' (Watt 1994: 96) is both methodological and epistemological. He begins by describing the ambition of his own work (which would be published in book-length form that same year, Brekle 1994b): to develop a historico-genetic theory of the Latin alphabet's visual forms, grounded in empirical data and open to cognitive explanation. To that end, Watt's prior work could certainly be useful: Watt (1983) proposed that changes in letterforms are due to four interacting and competing cognitive forces: (1) *homogenisation* promotes visual uniformity across letterforms, driven by cognitive preferences for systematicity and perceptual regularity; (2) *facilitation*, in

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[10]All German quotes were translated by me.
[11]Herbert E. Brekle (1935–2018) was Professor of German Linguistics at the University of Regensburg. A typographer by training and a scholar of historical semantics and writing systems, Brekle authored foundational works on the visual and historical development of Latin letterforms (Brekle 1994b), combining philological rigour with semiotic analysis.
[12]W. C. Watt (b. 1932) trained under Zellig Harris and worked as a computational linguist and semiotician before joining the University of California, Irvine, where he taught until his retirement in 1994. His writings span psycholinguistics, semiotics, and literary theory, with a sustained interest in cognitive perspectives on writing systems.

contrast, stems (mainly) from production and favours shapes that are easier to write. Balancing these are two counterforces: (3) *heterogenisation*, which ensures enough visual distinctiveness between letters to maintain readability, and (4) *inertia*, which reflects a general resistance to change, preserving familiar shapes over time. Watt understands them not as deterministic rules but conflicting pressures that shape how scripts evolve across time and media, producing observable patterns in the way lettershapes are differentiated, simplified, stabilised, or diversified.

What Brekle finds lacking in Watt's approach is an empirical anchor: 'Where and how are these four "forces" anchored in empirical reality?', he asks (Brekle 1994a: 130). For Brekle, Watt's failure to offer a clear mapping between those forces and observable properties of human writing and reading processes undermines their explanatory power.

Thus, while Watt presents his framework as a cognitive model, Brekle is unconvinced that it reflects actual psycholinguistic or graphetic processes. Specifically, he objects that Watt does not sufficiently address the sociohistorical and material dimensions of letterform development. He also criticises Watt's emphasis on motoric production (especially in the context of the force of facilitation), arguing that readability and perceptual optimisation played at least as important a role in shaping letters – especially as historical developments often enhanced legibility rather than simplifying execution (Brekle 1994a: 132). In contrast, Brekle emphasises that letterforms were shaped by complex interactions among production constraints, technological changes, and visual-perceptual considerations. He proposes his own and supposedly more robust analytical categories: symmetry, vectoriality, and rectilinarity and curvilinearity (see for more detail and ample examples, Brekle 1994b). They are 'cognitivistically motivated parameters' that are 'descriptively essential and explanatory [sic] useful' (Brekle 1994a: 135). This foreshadows much later developments in grapholinguistics that aim to reconcile description with explanation (Meletis 2020).

In the introduction to the volume part in which Brekle's chapter appears, Watt acknowledges Brekle's critique but reaffirms the purpose of his theory, which is to provide a model of script evolution that is not merely historical or descriptive but explanatory – insinuating, possibly, that Brekle's approach is not *as* explanatory in nature. He *does* bring in psycholinguistic plausibility, such as the idea that learners can generalise even from partial feature knowledge: a child who forgets the shape of a letter, for instance, may still remember a broader pattern like 'augmentations go to the right', and use that generalisation to reconstruct the form (Watt 1994: 98), producing errors like a right-facing <J>. For Watt, such generalisations are not trivial: they signal underlying cognitive tendencies that could, in principle, drive long-term shifts in letterforms.

The Brekle–Watt dispute thus illustrates a recurring methodological rift as well as clash of explanatory paradigms in grapholinguistics: between formal modelling and empirical grounding, abstraction and materiality, between the drive for theoretical generalisation and the resistance posed by empirical and contextual complexity (and, at a metalevel, between universality and diversity, see Meletis 2022). While Watt proposes generative productional and perceptual 'grammars' of letterforms inspired by linguistic models (Watt 1975, 1980, 1981) and a theory of how they could have evolved (Watt 1983), Brekle insists on anchoring such models in historical and cognitive evidence, such as his hasta and coda principle,[13] and

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[13]The hasta and coda principle describes a common structural pattern in many Latin letterforms whereby a vertical stem (the hasta) is followed by an additional element (the coda), typically attached to the right side (as in <b>; see also next section). This pattern, which is both perceptually economical and easily executable, has been identified as a persistent topological feature across historical stages of the Latin alphabet and is considered cognitively grounded due to its alignment with writing direction and stroke order (Brekle 1994a, 1994b).

on theories of writing being diachronic and multimodal. His call for engagement with epigraphers and palaeographers underscores a broader theme: that grapholinguistics cannot proceed in isolation, but must remain interdisciplinary in both method and ambition. What appears at first as a dispute over the shape of letters turns out to be a debate about the shape of the field itself.

Notably, this tension has not disappeared. More recent work echoes both sides of the debate. Cognitive scientist Stanislas Dehaene, for example, defends a theory of neuronal recycling in which '[w]riting evolved to fit the cortex' and argues that scripts have changed 'under the constraint that even a primate brain had to find them easy to acquire' (Dehaene 2009: 150). Dehaene cautions against cultural relativism and sees universal tendencies as a key driver of script design, mirroring Watt in his ambition to identify generalisable cognitive forces. Conversely, in a commentary to Dehaene's work, anthropologist Gregory Downey warns against what he calls 'a strong form of [. . .] neurological determinism' in the study of writing (Downey 2014: 306). He argues that such approaches risk flattening the complex anthropological, historical, and technological dimensions of literacy. Downey's call for a more holistic, ethnographically informed grapholinguistics recalls Brekle's insistence on factoring in social and material conditions of writing.

3.3. Rezec vs. Primus (and Fuhrhop and Buchmann): modelling, evidence, and the limits of innovation

The third dispute revolves around a core epistemological question in grapholinguistics: can the visual structure of Latin letters be decomposed into subcomponents that systematically correspond to phonological features? In a pair of papers, Beatrice Primus[14] (2004, 2006) proposed a bold answer: yes. Drawing on Optimality Theory and principles from structural linguistics, she argues that letterforms contain latent iconicity – regular correlations between features/parts of graphic elements (e.g. ascenders, curves, orientation) and phonological categories such as sonority, obstruents, or place of articulation. For instance, letters with ascenders are interpreted as representing obstruents. Thus, Primus treats the Latin alphabet not as an arbitrary visual inventory but as a structured, motivated system.

Oliver Rezec's[15] (2010, 2011) response is polemical and exhaustive. He starts bold, by asserting that it 'is widely considered a consensus that the shape of our letters is arbitrary: their appearance bears no relation to the sound of the phonemes they represent' (Rezec 2010: 343). Against this background, he accuses Primus of circular reasoning, of constructing a model that simply encodes its own assumptions, and of failing to demonstrate the empirical reality of the correlations she proposes: 'The system Primus proposes', he writes, 'amounts to little more than the sum of the assumptions, maxims, definitions, and constraints established in preparation' (Rezec 2011: 98). His critique centres on a number

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[14]Beatrice Primus (1954–2019) was Professor of German Linguistics at the University of Cologne. Trained in syntax and information structure, she later developed formal models of graphematic structure, most notably a decomposition-based account of Latin letterforms and their potential linguistic functions.

[15]Oliver Rezec (b. 1979) earned his doctorate from the University of Munich with a thesis on graphetic/graphematic structure (Rezec 2009) and has since left academia. In his 2010 and 2011 articles, he delivered a high-profile critique of Primus's graphematic modelling, sparking one of the most notable debates in German(ist) grapholinguistics.

of interconnected concerns, of which I want to single out two: first, that Primus imports concepts from other linguistic domains – such as the concepts of 'head' and dependency from syntax, the concept of constructional iconicity from morphology, or the principle of compositionality from semantics – without justifying their transferability to writing. Second, that her segmentation of letters is unmoored from actual graphic form or palaeographic development. Particularly scathing is his rejection of her decomposition of letters like <o> or <x>, which she both analyses as being composed of two half circles, and the assumption that symmetrical letters such as <v> are directional (specifically right-leaning) head-coda structures (such as, uncontroversially, <b>, with the straight stroke being the head and the half-circle attached on the right the coda): 'To assign orientation to fully symmetrical letters', Rezec (2010: 347) argues, 'is methodologically untenable'.

Rezec repeatedly calls for 'external anchoring' of assumptions – through palaeographic evidence, cognitive data, or production-based, i.e. articulatory, justification. Without such evidence, he warns, even the most internally coherent system risks becoming a self-validating construct. His own position implicitly favours historical and motoric explanation as he points out that readers are also potential writers (invoking the *motor theory of speech perception*; Rezec 2011: 91[16]). Moreover, he notes that the Latin lowercase letters emerged through manual writing, which makes a production-oriented approach not only plausible but necessary.

Primus' 2011 reply emphasises that Rezec misreads the nature of her model and the purpose of its principles. She insists that her analysis is heuristic, not deterministic; that the constraints she uses are violable and ranked, in line with OT's logic. 'Principles provide the only reliable consistency criteria', she argues (Primus 2011: 65), and 'it is precisely this internal consistency that justifies the segmentation choices'. Far from claiming universal iconicity, she presents her model as a testable framework for theorising graphe(ma)tic structure – particularly one that privileges perception over production, which is a continuous conflict negotiated in grapholinguistics (see also Brekle vs. Watt above). She defends the abstraction inherent in her framework, for instance in the segmentation of <o>, as a legitimate attempt to model latent structure, and criticises Rezec's adherence to graphic surface forms as naïve: 'He is guided by the principle of "what you see is that you get"', but '[s]ince structuralism, it has been common knowledge that the structure of linguistic expressions is not directly observable' (67).

Supporting Primus, Fuhrhop and Buchmann (2011) intervene with a more conciliatory tone. Interestingly, they start by listing three possible ways to react to novel ideas in science: ignoring them, building on them, or annihilating them. In their eyes, with respect to Primus' proposal, Rezec chooses the third and they choose the second (Fuhrhop & Buchmann 2011: 87). While they decompose letters and assign features with a different motivation – to develop their own model of a graphematic syllable (Fuhrhop & Buchmann 2009), they do draw on Primus' decomposition and modify it only minimally. This suggests the generativity of her framework, which leads Fuhrhop and Buchmann to 'explicitly recommend Primus' work to readers' because it 'is refreshing, far-reaching, and [...] revolutionary' (Fuhrhop & Buchmann 2011: 87).

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[16]He calls it the *motor theory of speech production*, but perception is probably what he meant.

The deeper disengagement, here, is not over individual letters or their features, but over what kind of theorising grapholinguistics should permit. For Rezec, a valid model must be historically plausible and empirically grounded, making it externally justifiable. He appears to consider theory-building without such anchoring as dangerously speculative. For Primus and her defenders, synchronic abstraction and analogical reasoning are not only valid but indeed necessary tools for uncovering 'structure' in a domain where data are sparse and visual intuition often misleading. Rezec seeks epistemic caution and appeals to 'consensus', while Primus advocates for methodological boldness. The result is a paradigmatic clash between empiricism and formalism, between modelling as interpretation and modelling as explanation.

Historiographically, this dispute illuminates a recurring conflict in grapholinguistics: how – and even *if* – visual forms of writing should be analysed. It also reflects broader disciplinary uncertainties about transferability and the limits of 'analogues' (see also above): can models borrowed from syntax, semantics, etc. be feasibly applied to the study of writing? Or does writing require its own, modality-specific frameworks? (Or does the answer lie somewhere in the middle?) The Rezec–Primus debate brings those questions into sharp relief – and in doing so, underscores the need for continued and critical epistemological reflexivity.

Recent developments in the study of character-based writing systems highlight the continued relevance and reconfiguration of this debate. Myers (2019), in his extensive analysis of Chinese characters, applies a fully grammatical model to their internal structure, drawing analogies from phonetics, phonology, and morphology to account for their segmentability and combinatorics. Like Primus, Myers rejects the notion that graphic units are holistic or unanalysable and instead demonstrates how systematic substructure can be modelled productively and rigorously. His work exemplifies a more mature phase of graphematic theorising – one that embraces analogical modelling while grounding it in empirical constraints. Taken together with structural approaches to Latin script (e.g. Fuhrhop & Buchmann 2009), this suggests that while scepticism like Rezec's remains influential, structural models of script composition have not only persisted but expanded in scope and ambition. The underlying epistemological questions – how much abstraction is justifiable, and under what conditions – remain open, but the field is clearly moving towards more integrated, theory-driven accounts of graphematic structure.

3.4. *Unger vs. Handel: typology, essentialism, and their cognitive stakes*

The fourth and most recent dispute concerns one of grapholinguistics' most active and prolific subfields: writing system typology (see Meletis & Dürscheid 2022, Chapter 6). Initially sparked by a mere footnote in Handel (2013), the debate between J. Marshall Unger[17] and Zev Handel[18] unfolded in successive issues of the journal *Scripta* between 2014 and 2016. It revisits and intensifies an earlier critique of typological essentialism voiced by Unger and John DeFrancis (who originally, in Unger & DeFrancis 1995, criticised Sampson 1985)

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[17]J. Marshall Unger (b. 1947) is Professor Emeritus of East Asian Languages and Literatures at The Ohio State University. Trained at Yale University (Ph.D. 1977), he has written extensively on Japanese writing, language history, and orthographic reform. Unger is known for his empirically grounded critiques of logographic typologies and his contributions to the neurocognitive study of literacy.

[18]Zev Handel is Associate Professor of Chinese Linguistics at the University of Washington, Seattle. His research focuses on historical phonology, Chinese dialectology, Tibeto-Burman languages, and Asian writing systems, with particular interest in typological issues and the adaptation of Chinese characters across East Asia.

focusing on whether Chinese can (or should) be classified as a logographic writing system. At its core, this dispute is not merely terminological but conceptual, raising paramount questions such as: What constitutes a valid typology? What kinds of distinctions are meaningful? And what disciplinary assumptions underlie different approaches to classification?

Unger's position is explicit: he rejects any categorisation that treats entire writing systems as essentially logographic or phonographic and is based on the presupposition of a writing system having a 'central organizing principle' (going back to Sampson 1994). This view, he argues, is 'essentialist' and in this case rests on what he calls 'sinocentric exceptionalism' (Unger 2014: 93) – the belief that Chinese writing is uniquely structured, making it cognitively distinct from other writing systems. Per Unger, this view is both empirically unfounded and ideologically charged. Drawing on sinologist John DeFrancis'[19] work and recent neuroscientific research by Dehaene (see also above), he argues that all full writing systems 'necessarily[20] combine phonographic and logographic techniques' (Unger 2014: 75) as '[p]honological recoding and morpheme recognition are competing processes that occur simultaneously' (Unger 2014: 83). Crucially, he insists that 'logographicity' and 'phonographicity' are not categorical properties but 'just the name of a scalar value' (Unger 2014: 82), whose degree and function depend on context.

Handel, in his 2015 reply, defends the utility of categorising Chinese as a predominantly logographic system – albeit with clear caveats. For Handel (2015: 118), such labels such as 'logography' and 'phonography' are approximations, useful generalisations rather than rigid taxonomies. He positions his typology not as essentialist but as empirically grounded, noting that most Chinese characters 'represent morphemes' and that such patterns differ in systematic and significant ways from those of alphabetic writing systems (Handel 2015: 116, 125). Unger questions whether system-level classifications are justified when individual characters function logographically in some contexts and phonographically in others. For him, such context-sensitive variation is what makes system-wide labels misleading at best and epistemologically suspect at worst: 'The problem lies precisely in making a leap from individual graphic units in particular contexts to the entire system in which they figure (and back again)' (Unger 2016: 95).

The disagreement extends to the role of psycholinguistic evidence. Handel appeals to neuroscientific studies, including – despite what he identifies as 'a rhetorical strategy of hedging or downplaying [...] differences as insignificant' (Handel 2015: 126) – Dehaene's work, to argue that differences in writing system structure – such as the use of semantic components in Chinese – correlate with measurable differences in brain activation, literacy acquisition, and reading disorders (125–134). For him, such findings support a classification that distinguishes Chinese writing from alphabetic systems. Unger counters that while some differences exist, they do not support a binary typology. Dehaene's core thesis, he emphasises, is that the same basic neural mechanisms are repurposed across writing

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[19] John DeFrancis (1911–2009) also was a central figure in the study of writing, and his 1989 book *Visual speech: The diverse oneness of writing* (DeFrancis 1989) remains influential to this day.

[20] A full writing system, according to Unger (2014, 2016), is one that is capable of representing any grammatical utterance of a language and is thus coextensive with natural-language speech. This requires the system to include phonographic elements – signs that represent speech sounds – since logography alone cannot capture the full combinatorial range of spoken language.

systems (Unger 2016: 88–89), which undermines the idea of categorical cognitive distinctions.

This final dispute is historiographically illuminating in part because it reveals so many layers of disciplinary formation at once. It touches on the theory of categorisation, the relationship between empirical data and conceptual models, the influence of cultural assumptions on scholarly practice, and the epistemic status of neurocognitive evidence. Importantly, it also links back to themes from the other disputes: Like Brekle before him, Unger critiques the imposition of a structural or classificatory framework that fails to reflect the complexity of writing systems as they are used. Handel, meanwhile, echoes Primus in his belief that generalisation and explanatory power remain necessary – even if imperfect.

What emerges is not a resolution but a sharpening of the stakes. Is a writing system a set of units with primarily linguistic value – or a heterogeneous set of representations used across communicative, historical, and technological contexts? Can typologies help us see meaningful patterns, or do they risk flattening difference in the service of theory? These questions remain open, and the Unger–Handel debate ensures that they are asked with renewed clarity.

Recent work has shifted typological discourse away from rigid classification towards more nuanced, multidimensional approaches. Scholars such as Joyce and Meletis (2021) argue for alternative typological criteria that account for orthographic transparency, systemic variability, and usage patterns, rather than privileging dominant 'mapping levels' (such as phonemic, syllabic, morphological, . . .). Similarly, Meletis (2024b) advocates for a multi-perspective model that integrates structural, psycholinguistic, and sociolinguistic categories into a flexible typological framework, moving beyond essentialist labels and towards explanatory breadth. These developments suggest that the very tensions highlighted by Unger and Handel – between empirical generalisation and contextual specificity – have foreshadowed a more inclusive and comparative typology of writing. Rather than flattening difference, newer models aim to foreground it as a source of insight, aligning typological theory more closely with the empirical and ideological complexity of writing systems.

4. Comparative reflections

The four disputes analysed above share no single theoretical thread. They differ in scope, tone, and argumentative depth. And yet, they form a pattern: each conflict articulates a vision for how writing should be studied, what counts as valid theorising, and where the limits of linguistic inquiry lie. This section compares the disputes through the four analytical dimensions suggested by Handel (2015: 111): *terminology*, *typology*, *evidence*, and *domain*. These dimensions do not exhaust the field's internal tensions but provide a useful scaffold for understanding how these debates perform disciplinary work.

4.1. Terminology: the semantics of disagreement

At the core of several disputes lies a seemingly simple problem: what should we call things, and what if we use the same term to mean different things? The terminological stakes are highest in the Daniels–Herrick and Unger–Handel debates: Daniels questions the legitimacy of the term *grapheme*, arguing that a unit with such a name lacks the structural function of the phoneme and should therefore not be analogised to it. Herrick replies that such analogy is not only possible but productive – *graphemic graphemes* (which he usually just calls 'graphemes', Herrick 1994a: 417) are internal units of the writing system, just as phonemes are internal units of phonology.

Unger and Handel disagree over the term *logographic*, which for Unger has been stripped of explanatory power and rendered circular. Handel responds that while its usage may be contested, it still captures a meaningful generalisation: that certain systems predominantly represent morphemes rather than phonemes. What we witness here is not merely a disagreement over semantics, but a broader anxiety about disciplinary coherence. Terminology in a field as young and interdisciplinary as grapholinguistics does more than label concepts – it frames arguments, sets boundaries, and legitimises entire research agendas (and this includes even the discipline's name, see Meletis 2024a). As Handel (2015: 112) puts it, 'proliferating individualized interpretations of technical terms renders scholarly debate about the underlying issues difficult if not impossible'. Yet, as Herrick and Unger would argue, terminological evolution is often necessary to challenge entrenched paradigms and open new conceptual space (see also Meletis 2021: 138–139 for a re-evaluation of the meaning of 'orthography').

4.2. Typology: between structure and use

The most explicit disagreement about typology surfaces in the Unger–Handel exchange, where the question is not whether writing systems can be categorised, but *how*, and to what end. Unger's typological scepticism rests on two pillars: first, that labels such as *logographic* presuppose a problematic essentialism; second, that such labels often obscure more than they reveal by attributing system-level properties to context-sensitive units. Handel counters that typologies – even approximate ones – are heuristically valuable: 'The differences among these systems are real and significant', he writes, 'and they are no less so for being clear-cut tendencies rather than absolute categorisations' (Handel 2015: 144). He also acknowledges the possibility – and indeed validity and usefulness – of alternative typologies based on other criteria, naming as examples the 'internal physical structure of graphs, methods of writing new words, correlation of graphs to units of speech, differences in the cognition of writing, differences in the cognition of learning to read, differences in lexicographic practice, differences in pathways of script borrowing, differences in methods of computer encoding' (134; see also the dimensions in Daniels & Share 2018 and the critical evaluation of the narrowness of 'traditional' writing system typology in Joyce & Meletis 2021; Meletis 2024b).

Thus fundamental tension reverberates in other disputes as well. Daniels resists structural graphemics in part because he sees writing systems as too diverse to fit into a unified theoretical framework. For Rezec, Primus' analysis of the Latin alphabet on the basis of German is inadequate because it is used for so many distinct languages (Rezec

2010: 345). In contrast, Primus, Herrick, and even Brekle advocate for structural abstraction as a means of recognising cross-linguistic patterns, without necessarily assuming perfect uniformity or exhaustive coverage. Fuhrhop and Buchmann (2011: 85) stress that typological claims must be grounded in detailed single-language analyses, as every typology must start somewhere.

In all cases, typology is not a neutral activity. It reflects disciplinary values – about precision, generality, usefulness – and about what kind of knowledge is worth pursuing. For scholars like Unger, the danger lies in mistaking generalisation for explanation; for Handel and Primus, the danger lies in refusing to generalise at all.

4.3. Evidence: what counts, and for whom?

Closely linked to typological practice is the question of evidence. What forms of data are necessary to support claims about writing? Rezec (2011: 98) is the most stringent here, accusing Primus of constructing a system that 'amounts to little more than the sum of its assumptions'. Without external validation, he argues, such a system lacks explanatory power. Similarly, Brekle criticises Watt for failing to anchor his 'forces' in empirical reality, calling for more attention to palaeographic and perceptual evidence.

In contrast, Herrick and Primus defend theorising even in the face of limited empirical data. For them, abstraction is not a luxury but a necessity in fields where observable regularities are elusive. Fuhrhop and Buchmann explicitly frame their graphematic modelling as an act of disciplinary risk-taking – a move away from data-heavy analysis towards conceptual innovation.

Unger and Handel disagree not so much on the need for evidence, but on its interpretation. Unger reads Dehaene's work as support for the cognitive similarity of all full writing systems; Handel uncovers in it indications for important processing differences between Chinese and alphabetic writing systems. The problem, thus, is not in the absence of data, but its overdetermination: the same studies are marshalled to support opposing conclusions. This epistemic slippage underscores the methodological pluralism of grapholinguistics. Experimental, historical, formal, and theoretical methods all coexist – sometimes uneasily – within the same discursive space. What counts as sufficient evidence is not only a methodological issue, but a question of disciplinary identity.

4.4. Domain: where does writing belong?

The deepest disagreement across the disputes concerns the disciplinary status of writing itself. Is writing a part of language with its own structure(s) or merely a representation of it? Is the study of writing a linguistic endeavour, or something adjacent – perhaps even extralinguistic? For Daniels, the answer appears clear: writing is a conscious invention, a graphic modality latched onto spoken language, not its *own* system, and should be treated accordingly – that is, as a graphic analysis of structures found in language. Any features of writing that go beyond that function are, for him, of secondary interest. For Herrick, by contrast, writing is not only connected to spoken language but (also) a linguistic system in its own right, subject to synchronic and diachronic linguistic analysis, and especially deserving of emic structural description. Rezec (2011: 93)

partially echoes Daniels in spirit, questioning whether written forms can (straightfor-wardly) be treated as linguistic expressions in the structuralist sense, but, like Brekle, adds a historical and materialist dimension: writing is shaped by tools, motor constraints, and social usage. Primus, as well as Fuhrhop and Buchmann, however, reaffirm that writing systems are not only structured, but structured in ways that are comparable – though not identical – to the spoken modality of language, as well as levels of the abstract language system such as morphology and syntax. Their – as well as Herrick's – analogies to those other areas are rejected by Rezec and Daniels in what could be seen as a clash between innovation and conservatism.[21]

Unger and Handel exemplify a more contemporary iteration of this tension. Both accept that writing is worth studying, but they differ in how it should be integrated into linguistic theory. Handel emphasises the value of linguistic classification, even if it must be supplemented by typologies from other fields (see also Meletis 2024b). Unger cautions that linguistic categories must not reify cultural exceptionalism or obscure the contextual fluidity of graphic units. At stake is not whether writing matters, but how it should be framed: as a cognitive tool, a social artefact, a linguistic system, or all of the above.

5. Conclusion

This paper has examined four major scholarly disputes in grapholinguistics not to resolve them, but to explore what they disclose about the field's epistemological tensions, conceptual and terminological stakes, and disciplinary identity. Each disagreement – whether over the linguistic status of writing, the scope of cognitive models, the viability of constraint-based abstraction, or the function of typological categories – serves as a crystallisation of deeper questions: What counts as linguistic evidence? How should units be defined? What kind of generalisations are desirable – or defensible?

Rather than treating disagreement as a failure of coherence, the analysis has framed it as an important mechanism of disciplinary negotiation. Following Swiggers' (2010) model of contemplative historiography, the paper has read these disputes as reflexive moments in which the field confronts its own assumptions and negotiates its intellectual commitments. In this sense, the study aligns with a broader historiography of linguistics that attends not only to theoretical content but to the conditions and practices of knowledge production (Koerner 1995a, 1995b).

The fact that all participants in these disputes were themselves committed to the study of writing makes their disagreements all the more revealing. Daniels drew conceptual boundaries to safeguard the study of writing from what he saw as inappropriate analo-gies. Herrick and Watt, by contrast, sought to expand those boundaries to capture neglected structural and cognitive phenomena. Primus and Handel attempted to model these phenomena with formal clarity, while Rezec and Unger issued strong critiques of abstraction untethered from historical or empirical constraints. None of these positions dismisses writing as a research object. On the contrary: each reflects a different vision of how it should be studied, and for what purposes.

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[21]See also Rudwick (1979: 67): 'It is at least arguable that major cognitive innovation is most likely to emerge in the scientific work of individuals who choose to employ analogies that [...] are strongly "external": that is, analogies that are furthest removed from the "normal practice" of the discipline concerned. This may happen when a scientific field scarcely yet deserves the name of "discipline," because its practice is not yet strongly insulated and institutionalized.'

From a comparative perspective, what emerges is not a unified theory of writing, but a shared terrain of questions that remain unsettled: How should central concepts be defined in such a multilingual, multimodal, and highly inter-disciplinary field? What are the appropriate criteria for typological classification? How much abstraction is productive – and when does it become speculative? And where should the study of writing be located: within linguistics, or across disciplinary lines?

These are not new questions. As shown by past disputes – between Neogrammarians and their critics, between structuralism and philology, or in the generative debates of the 1960s and 70s – conceptual conflict has long shaped the development of linguistic disciplines. The typological disagreements between Unger and Handel, for instance, echo older tensions between essentialist and usage-based models of linguistic classification. The challenge of modelling letterforms structurally, addressed by Primus and rejected by Rezec, recalls earlier debates over form–function correspondences in phonology. Daniels' resistance to structural graphemics parallels historic scepticism towards marginal or hybrid subfields. In this sense, the 'grapholinguistic wars' are not isolated episodes but part of a longer tradition in which scholarly disagreement serves as a driver of epistemic refinement.

Yet grapholinguistics offers a particularly instructive case. Because it is still consolidating its institutional presence, its internal frictions remain visible and unresolved. The tensions surveyed here reflect not only differing theories of writing, but competing visions of what kind of discipline grapholinguistics might become. Should it strive for theoretical autonomy? Integrate more fully into mainstream linguistics? Expand into an interdisciplinary domain of its own?

Answering these questions requires not just better models or broader data, but greater historiographic self-awareness. As noted in the introduction, the historiography of grapholinguistics is still in its infancy. We lack comprehensive accounts of how writing has been studied across languages and traditions – a gap that must be addressed before truly comparative analyses can take root. Studying scholarly disputes offers a shortcut of sorts: it foregrounds the neuralgic points around which the field has begun to organise itself, exposing the tensions that most strongly animate its development.

In this light, the four disputes examined here are neither merely symptomatic nor directly formative in a linear sense. Rather, they spotlight central epistemological tensions – about the autonomy of writing, the role of structure, the types of evidence consulted, and the legitimacy of typological reasoning – that continue to shape how grapholinguistics defines itself. While not all of these disputes have led to consensus, they have helped crystallise key positions and clarify underlying assumptions. In doing so, they foreshadow later developments: a growing openness to structural models (see, for instance, Myers 2019), increased reflection on typological frameworks (see Meletis 2024b), and the gradual consolidation of grapholinguistics as a distinct field (see Barbarić 2023; Meletis 2020; Meletis & Dürscheid 2022). They also show that disagreement – when approached reflexively – can help surface and stress-test disciplinary boundaries. As grapholinguistics continues to evolve, it will benefit not only from methodological rigour and theoretical ambition, but from ongoing conversation that is not only critical and open-ended but, crucially, historically informed.

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References

Anis, Jacques. 1983. "Pour une graphématique autonome." *Langue Française* 59 (1): 31–44. https://doi.org/10.3406/lfr.1983.5164.

Anis, Jacques. 1988. *L'écriture: Théories et descriptions*. Brussels/Paris: De Boeck-Wesmael.

Anzola, David. 2021. "Disagreement in Discipline-Building Processes." *Synthese* 198 (S25): 6201–24. https://doi.org/10.1007/s11229-019-02438-9.

Barbarić, Vuk-Tadija. 2023. "Grapholinguistics." In *The Cambridge Handbook of Historical Orthography*, edited by Marco Condorelli & Hanna Rutkowska, 118–37. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108766463.006.

Berg, Kristian. 2019. *Die Graphematik der Morpheme im Deutschen und Englischen*. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110604856.

Bloomfield, Leonard. 1933. *Language*. New York: Henry Holt and Co.

Brekle, Herbert E. 1994a. *Die Antiqualinie von ca. −1500 bis Ca. +1500. Untersuchungen zur Morphogenese des westlichen Alphabets auf kognitivistischer Basis*. Münster: Nodus Publikationen.

Brekle, Herbert E. 1994b. "Some Thoughts on a Historico-Genetic Theory of the Lettershapes of Our Alphabet." In *Writing Systems and Cognition*, edited by W. C. Watt, 129–39. Dordrecht: Springer. https://doi.org/10.1007/978-94-015-8285-8_8.

Catach, Nina, ed. 1988. *Pour une théorie de la langue écrite: Actes de la Table Ronde internationale C.N.R.S – H.E.S.O. Paris*, 23–24 octobre 1986. Paris: Éditions du CNRS.

Dąbrowska, Ewa. 2020. "How Writing Changes Language." In *Language Change: The Impact of English as a Lingua Franca*, edited by Anna Mauranen & Svetlana Vetchinnikova, 75–94. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108675000.006.

Daniels, Peter T. 1991. "Is a Structural Graphemics Possible?" *Lacus Forum* 18:528–37.

Daniels, Peter T. 1994. "Reply to Herrick." *Lacus Forum* 21:425–31.

Daniels, Peter T. 2017. "Writing Systems." In *The Handbook of Linguistics*, 2nd ed., edited by Mark Aronoff & Janie Rees-Miller, 75–94. Oxford/Malden: Wiley-Blackwell. https://doi.org/10.1002/9781119072256.ch5.

Daniels, Peter T. 2018. *An Exploration of Writing*. Bristol: Equinox.

Daniels, Peter T., & William Bright, eds. 1996. *The World's Writing Systems*. Oxford: Oxford University Press.

Daniels, Peter T., & David L. Share. 2018. "Writing System Variation and Its Consequences for Reading and Dyslexia." *Scientific Studies of Reading* 22 (1): 101–16. https://doi.org/10.1080/10888438.2017.1379082.

DeFrancis, John. 1989. *Visible Speech: The Diverse Oneness of Writing Systems*. Honolulu: University of Hawaii Press.

Dehaene, Stanislas. 2009. *Reading in the Brain: The New Science of How We Read*. New York: Penguin.

Dellsén, Finnur, & Maria Baghramian. 2021. "Introduction: Disagreement in Science." *Synthese* 198 (S25): 6011–21. https://doi.org/10.1007/s11229-020-02767-0.

Domahs, Ulrike, & Beatrice Primus, eds. 2016. *Handbuch Laut, Gebärde, Buchstabe*. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110295993.

Downey, Greg. 2014. "All Forms of Writing." *Mind & Language* 29 (3): 304–19. https://doi.org/10.1111/mila.12052.

Dürscheid, Christa. 2016. *Einführung in die Schriftlinguistik*. 5th ed. Göttingen: Vandenhoeck & Ruprecht.

Ehlich, Konrad. 2001. "Graphemics/[Transindividual] Graphology." In *Loss of Communication in the Information Age*, edited by Rudolf de Cillia, Hans-Jürgen Krumm, & Ruth Wodak, 61–76. Wien: Verlag der Österreichischen Akademie der Wissenschaften.

Ehlich, Konrad, Florian Coulmas, & Gabriele Graefen, eds. 1996. *A Bibliography on Writing and Written Language*. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110889352.

Eisenberg, Peter. 1988. "Über die Autonomie der graphematischen Analyse." In *Probleme der geschriebenen Sprache. Beiträge zur Schriftlinguistik auf dem XIV. Internationalen Linguistenkongress 1987 In Berlin*, edited by Dieter Nerius & Gerhard August, 25–35. Berlin: Akademie der Wissenschaften der DDR.

Enderle, Ursula. 2005. *Autonomie der geschriebenen Sprache? Zur Theorie phonographischer Beschreibungskategorien am Beispiel des Deutschen*. Berlin: Erich Schmidt Verlag.

Eysenck, Michael W., & Mark T. Keane. 2020. *Cognitive Psychology: A Student's Handbook*. 8th ed. London/New York: Psychology Press.

Fuhrhop, Nanna, & Franziska Buchmann. 2009. "Die Längenhierarchie: Zum Bau der graphematischen Silbe." *Linguistische Berichte* 218:3–31. https://doi.org/10.46771/2366077500218_1.

Fuhrhop, Nanna, & Franziska Buchmann. 2011. "Buchstabenformen und ihre Relevanz für eine Schriftgrammatik. Erwiderung auf einige Thesen von Oliver Rezec." *Linguistische Berichte* 225:76–87. https://doi.org/10.46771/2366077500225_5.

Fuhrhop, Nanna, & Jörg Peters. 2023. *Einführung in die Phonologie und Graphematik*. 2nd ed. Stuttgart: Metzler. https://doi.org/10.1007/978-3-476-05940-6.

Günther, Hartmut. 1988. *Schriftliche Sprache: Strukturen geschriebener Wörter und ihre Verarbeitung beim Lesen*. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110935851.

Günther, Hartmut. 1993. "Die Studiengruppe 'Geschriebene Sprache' bei der Werner Reimers Stiftung, Bad Homburg." In *Homo Scribens. Perspektiven der Schriftlichkeitsforschung*, edited by Jürgen Baurmann, Hartmut Günther, & Ulrich Knoop, 371–78. Tübingen: Niemeyer. https://doi.org/10.1515/9783111377087.371.

Günther, Hartmut, & Otto Ludwig, eds. 1994/1996. *Schrift und Schriftlichkeit/Writing and Its Use*. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110111293.1; https://doi.org/10.1515/9783110147445.2

Handel, Zev. 2013. "Can a Logographic Script Be Simplified? Lessons from the 20th Century Chinese Writing Reform Informed by Recent Psycholinguistic Research." *Scripta* 5:21–66.

Handel, Zev. 2015. "Logography and the Classification of Writing Systems: A Response to Unger." *Scripta* 7:109–50.

Harris, Randy Allen. 2021. *The Linguistics Wars: Chomsky, Lakoff, and the Battle Over Deep Structure*. 2nd ed. New York: Oxford University Press.

Harris, Roy. 2005. "Schrift und Linguistische Theorie." In *Schrift: Kulturtechnik zwischen Auge, Hand und Maschine*, edited by Gernot Grube, Werner Kogge, & Sybille Krämer, 61–80. München: Wilhelm Fink.

Heller, Klaus. 1980. "Zum Graphembegriff." In *Theoretische Probleme der deutschen Orthographie*, edited by Dieter Nerius & Jürgen Scharnhorst, 74–108. Berlin: Akademie-Verlag.

Henderson, Leslie. 1985. "On the Use of the Term 'Grapheme'." *Language and Cognitive Processes* 1 (2): 135–48. https://doi.org/10.1080/01690968508402075.

Herrick, Earl M. 1974. "A Taxonomy of Alphabets and Scripts." *Visible Language* 8 (1): 5–32.

Herrick, Earl M. 1994a. "Of Course a Structural Graphemics Is Possible!" *LACUS Forum* 21:413–24.

Herrick, Earl M. 1994b. "Reply to Daniels's Reply." *LACUS Forum* 21:432–40.

Joyce, Terry, & Dimitrios Meletis. 2021. "Alternative Criteria for Writing System Typology: Cross-Linguistic Observations from the German and Japanese Writing Systems." *Zeitschrift für Sprachwissenschaft* 40 (3): 257–77. https://doi.org/10.1515/zfs-2021-2030.

Koerner, E. F. K. 1993. "Historiography of Phonetics: The State of the Art." *Journal of the International Phonetic Association* 23 (1): 1–12. https://doi.org/10.1017/S0025100300004710.

Koerner, E. F. K. 1995a. "History of Linguistics: The Field." In *Concise History of the Language Sciences: From the Sumerians to the Cognitivists*, edited by E. F. K. Koerner & R. E. Asher, 3–7. Oxford: Pergamon Press.

Koerner, E. F. K. 1995b. "Historiography of Linguistics." In *Concise History of the Language Sciences: From the Sumerians to the Cognitivists*, edited by E. F. K. Koerner & R. E. Asher, 7–16. Oxford: Pergamon Press.

Kohrt, Manfred. 1986. "The Term 'Grapheme' in the History and Theory of Linguistics." In *New Trends in Graphemics and Orthography*, edited by Gerhard August, 80–96. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110867329.80.

Kohrt, Manfred. 1987. *Theoretische Aspekte der deutschen Orthographie*. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783111371580.

Kuhn, Thomas S. 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.

Lichtenstein, Eli I. 2021. "(Mis)Understanding Scientific Disagreement." *Studies in History & Philosophy of Science Part A* 85:166–75. https://doi.org/10.1016/j.shpsa.2020.10.005.

Meletis, Dimitrios. 2020. *The Nature of Writing: A Theory of Grapholinguistics*. Brest: Fluxus Editions. https://doi.org/10.36824/2020-meletis.

Meletis, Dimitrios. 2021. "On Being a Grapholinguist." *Grapholinguistics in the 21st Century, Proceedings, Part I, Paris, France, 2020*, edited by Yannis Haralambous. Brest: 47–62. Fluxus Editions. https://doi.org/10.36824/2020-graf-mele.

Meletis, Dimitrios. 2022. "Universality and Diversity in Writing Systems." *LACUS Forum* 46 (1): 72–83.

Meletis, Dimitrios. 2024a. "What's in a Name? Trends and Challenges in Naming the Study of Writing." In *Grapholinguistics in the 21st Century 2022*, edited by Yannis Haralambous, 1–44. Brest: Fluxus Editions. https://doi.org/10.36824/2022-graf-mele.

Meletis, Dimitrios. 2024b. "Schriftlinguistik interdisziplinär, multiperspektivisch, komparativ: Die Erarbeitung struktureller, psycholinguistischer und soziolinguistischer Typologien." In *Orthographie in Wissenschaft und Gesellschaft: Schriftsystem – Norm – Schreibgebrauch*, edited by Sabine Krome, Mechthild Habermann, Henning Lobin, & Angelika Wöllstein, 399–410. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783111389219-022.

Meletis, Dimitrios, & Christa Dürscheid. 2022. *Writing Systems and Their Use: An Overview of Grapholinguistics*. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110757835.

Meletis, Dimitrios. in press-a. "There had already been a structural graphemics. Revisiting and contextualizing a grapholinguistic dispute." *LACUS Forum* 47.

Meletis, Dimitrios. in press-b. "The normativity of linearity in writing and grapholinguistics." In *Handbook of Nonlinear Writing Systems: Complex Processes and Learning Challenges*, edited by Heather Winskel & Hye K. Pae. Singapore: Springer Nature.

Myers, James. 2019. *The Grammar of Chinese Characters: Productive Knowledge of Formal Patterns in an Orthographic System*. London: Routledge.

Neef, Martin. 2015. "Writing Systems as Modular Objects: Proposals for Theory Design in Grapholinguistics." *Open Linguistics* 1 (1): 708–21. https://doi.org/10.1515/opli-2015-0026.

Neef, Martin, & Beatrice Primus. 2001. "Stumme Zeugen der Autonomie – Eine Replik auf Ossner." *Linguistische Berichte* 187:101–26. https://doi.org/10.46771/9783967696851_4.

Neef, Martin, & Said Sahel, and Rüdiger Weingarten, edited by. 2024. *Schriftlinguistik*. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110717150.

Nerius, Dieter. 2013. "Zur Geschichte der Schriftlinguistik in der Germanistik der DDR." In *Positionen der Germanistik in der DDR: Personen – Forschungsfelder – Organisationsformen*, edited by Jan Cölln & Franz-Josef Holznagel, 387–97. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110223842.387.

Ossner, Jakob. 2001a. "Das <h>-Graphem im Deutschen." *Linguistische Berichte* 187: 325–51.

Ossner, Jakob. 2001b. "Worum geht es eigentlich? Replik auf die Replik von Martin Neef und Beatrice Primus." *Linguistische Berichte* 187:127–30. https://doi.org/10.46771/9783967696851_5.

Primus, Beatrice. 2004. "A Featural Analysis of the Modern Roman Alphabet." *Written Language and Literacy* 7 (2): 235–74. https://doi.org/10.1075/wll.7.2.06pri.

Primus, Beatrice. 2006. "Buchstabenkomponenten und ihre Grammatik." In *Orthographietheorie und Rechtschreibunterricht*, edited by Ursula Bredel & Hartmut Günther, 5–43. Tübingen: Niemeyer. https://doi.org/10.1515/9783110921199.5.

Primus, Beatrice. 2011. "Buchstabendekomposition – Replik auf Oliver Rezec." *Linguistische Berichte* 225:62–75. https://doi.org/10.46771/2366077500225_4.

Reinken, Niklas. 2022. "Review of Dimitrios Meletis. 2020. *The Nature of Writing: A Theory of Grapholinguistics*." *Zeitschrift für Rezensionen zur germanistischen Sprachwissenschaft* 14 (1–2): 100–04. https://doi.org/10.1515/zrs-2022-2101.

Rezec, Oliver. 2009. "Zur Struktur des deutschen Schriftsystems: Warum das Graphem nicht drei Funktionen gleichzeitig haben kann, warum ein <a> kein <ɑ> ist und andere Konstruktionsfehler des etablierten Beschreibungsmodells. *Ein Verbesserungsvorschlag*. PhD diss., Ludwig-Maximilians-Universität München. https://doi.org/10.5282/edoc.10730.

Rezec, Oliver. 2010. "Der Vermeintliche Zusammenhang zwischen Buchstabenformen und Lautwerten. Erwiderung auf einige Thesen von B. Primus." *Linguistische Berichte* (223): 79–102. https://doi.org/10.46771/2366077500223_4.

Rezec, Oliver. 2011. "Der vermeintliche Zusammenhang zwischen Buchstabenformen und Lautwerten. Zweite Erwiderung." *Linguistische Berichte* 225:88–99. https://doi.org/10.46771/2366077500225_6.

Rudwick, Martin J. S. 1979. "Transposed Concepts from the Human Sciences in the Early Work of Charles Lyell." In *Images of the Earth: Essays in the History of the Environmental Sciences*, edited by Ludmilla J. Jordanova & Roy Porter, 67–83. Chalfont St. Giles: British Society for the History of Science.

Sampson, Geoffrey. 1985. *Writing Systems: A Linguistic Introduction*. Redwood City: Stanford University Press.

Sampson, Geoffrey. 1994. "Chinese Script and the Diversity of Writing Systems." *Linguistics* 32 (1): 117–32. https://doi.org/10.1515/ling.1994.32.1.117.

Seidel, Markus. 2021. "Kuhn's Two Accounts of Rational Disagreement in Science." *Synthese* 198 (S25): 6023–51. https://doi.org/10.1007/s11229-019-02113-z.

Shaw, Jamie. 2021. "Feyerabend and Manufactured Disagreement." *Synthese* 198 (S25): 6053–84. https://doi.org/10.1007/s11229-020-02538-x.

Swiggers, Pierre. 2010. "History and Historiography of Linguistics: Status, Standards and Standing." *Revista Eutomia* 3 (2): 1–18.

Unger, J. Marshall. 2014. "Empirical Evidence and the Typology of Writing Systems: A Response to Handel." *Scripta* 6:75–95.

Unger, J. Marshall. 2016. "Avoiding Circularity: A Response to Handel." *Scripta* 8:87–100.

Unger, J. Marshall, & John DeFrancis. 1995. "Logographic and Semasiographic Writing Systems: A Critique of Sampson's Classification." In *Scripts and Literacy: Reading and Learning to Read Alphabets, Syllabaries and Characters*, edited by Insup Taylor & R. Olson David, 45–58. Dordrecht: Springer. https://doi.org/10.1007/978-94-011-1162-1_4.

Vachek, Josef. 1989. *Written Language Revisited*. Amsterdam/Philadelphia: John Benjamins. https://doi.org/10.1075/z.41.

Watt, William C. 1975. "What Is the Proper Characterization of the Alphabet? I: Desiderata." *Visible Language* 9 (4): 293–327.

Watt, William C. 1980. "What Is the Proper Characterization of the Alphabet? II: Composition." *Ars Semeiotica* 3 (1): 3–46.

Watt, William C. 1981. "What Is the Proper Characterization of the Alphabet? III: Appearance." *Ars Semeiotica* 4 (3): 269–313.

Watt, William C. 1983. "Mode, Modality, and Iconic Evolution." *Semiotics Unfolding: Proceedings of the Second Congress of the International Association for Semiotic Studies, Vienna, Austria, 1979*, edited by Tasso Borbé, Vol. 3, 1543–50. Berlin/Boston: De Gruyter. https://doi.org/10.1515/9783110869897.

Watt, William C. 1994. "Writing Systems: Introduction." In *Writing Systems and Cognition*, edited by W. C. Watt, 89–114. Dordrecht: Springer. https://doi.org/10.1007/978-94-015-8285-8_6.