

Pre-print of: Antia, B.E. & Mafofo, L. (2021). Text annotations: Examining evidence for a multisemiotic instinct and the intertextuality of the sign in a database of pristine self-directed communication. In S. Makoni, A. Kaiper-Maquez, & D. Verity (Eds.), *Integrational Linguistics and Philosophy of Language in the Global South*. London: Routledge Press, 84 – 103.

# **Text annotations: Examining evidence for a multisemiotic instinct and the intertextuality of the sign in a database of pristine self-directed communication**

Bassey E. Antia and Lynn Mafofo  
University of the Western Cape, South Africa

## **Abstract**

A Kuhnian paradigm shift in Applied/Sociolinguistics has ushered in a number of new lenses for rethinking the study of language and communication, but there has been rather limited synergy among the raft of new conceptualizations. As a consequence, the collective knowledge generated by, for instance, integrationism, multimodality and translingualism, has not been deployed to elucidate overarching questions that arguably unite them. This chapter funnels these three scholarly directions into a synergistic framework, multisemioticity, which is then applied to a relatively understudied database of first-order and receptive communication – text annotations. As jottings of the mind, annotations bear fewer imprints of normative consciousness and activity, and therefore are an interesting source for both investigating and enhancing the explanatory adequacy of theorization around language and communication. The analysis reveals an underlying multisemiotic instinct in annotation, which in turn suggests that reading in the southern context studied unfolds through a rich communicative repertoire in which languages, colors, graphology, images, intertextuality interact to create meaning.

**Keywords:** annotation, inner speech, resemiotization, semiotic remediation, indeterminacy.

## **Introduction**

The nature of language and communication has recently come under intense scrutiny from a number of scholarly directions in what is a new cycle, within Applied/Sociolinguistics, of

Thomas Kuhn's crisis in a paradigm (Kuhn, 1970). A crisis occurs when confidence is eroded in the explanatory adequacy of an existing paradigm. In Applied/Sociolinguistics, the fervor of recent critique of foundational notions is emblematic of this crisis. Consider the following exemplary directions: The translangual paradigm contests a view of individual multilingualism as separate or plural monolingualisms, and does so at both competence and performance levels. It substitutes symbiotic repertoire and fluidity of language practices for these views (Canagarajah, 2011; Otheguy et al., 2015; García, 2009; Lewis et al., 2012; Antia, 2017a; Makalela, 2015). An ecological perspective on repertoire implies that "communication transcends individual languages" and even "transcends words and involves diverse semiotic resources" (Canagarajah, 2013 p. 6), leading to an eclectic use of semiotic resources without concerns of diglossia or functional separation. Depending on the context, translangualism as a negotiative construct normalizes or seeks to normalize communication that draws and reconfigures material from features enregistered as different languages, and does not therefore see such communication as a transitional arrangement in the mold of Fishman's bilingualism without diglossia (Fishman, 1967).

Multimodality takes issue with the primacy and centrality accorded language in communication. It argues that, in the ordinary course of representation and communication, several culturally shaped meaning-making resources are drawn upon, and that verbal language is not necessarily the most important mode (Kress, 2010). Language "whether in speech or writing, has always existed as just one mode in the ensemble of modes involved in the production of texts, spoken or written" (Kress & van Leeuwen, 1996 p. 41). Thus, in the construction and mediation of meaning, a range of resources, including colors, composition, gesture, and dress, are called to do duty.

Integrationism, the framework underpinning many of the contributions in this book, self-identifies as a framework for the study of holistic meaning-making, but one in which language is no more than a "variable extra" (Harris, 2009 p. 44). Whereas eclecticism of semiotic resources typifies language and communication in the scholarly directions described previously, integrationism radically decenters language, viewing the linguistic sign as being constituted and meaningful only in relation to the activities (e.g. finding one's way, observing, walking, using a tool, etc.) in which it occurs or into which the sign user integrates it. In Harris' words, an important axiom of integrationism is that what "constitutes a sign is not given independently of the situation in which it occurs or of its material manifestation in that situation" (Harris, 1996 p. 154). While there is no denying that in a community there is a landmark which can be considered a sign, the integrationist's sign is not made by convention but through its function and interpretation within the specific, individual activities within which it occurs. Hopper (1999 p. 1 as cited by Lund, 2012 p. 14) succinctly makes the point that "integration[ism] sees an act of communication as a nexus in which the sign serves not to signal pre-established meanings but to link together all the different aspects of the act". Not surprisingly, then, "the sign does not 'have' its own meaning: it is 'made to mean' whatever the circumstances require" (Harris & Hutton, 2007 p. 202).

Although there are other perspectives as well, with their different vantage points, the above perspectives awaken "hopes of greater descriptive and explanatory adequacy" for accounts of language and communication, to use Allwood's (2008 p. 258) characterization of

embodied communication – yet another perspective. Common to all or a subset of these paradigms is that (1) they burst the myth of languages as reifications, alerting us rather to their emergent nature; (2) they burst another myth by historicizing socially privileged forms of language (e.g. standardized languages) and modes of communication (e.g., writing as opposed to drawing), thus unlocking the power and ideological rationales associated with these privileged forms and modes; and (3) they query the idea that the burden of communication can be borne by one resource independently of others in the available resource pool (named language 1, 2 ...n, nonverbal elements, activities, etc.).

In this chapter, our argument is that the problematization of language and communication in these exemplary directions is in certain respects problematic. We offer four possible bases for critique. First, there would seem to have been precious little contact among several of these approaches, with the implication that the collective knowledge generated by all of them has not been deployed to elucidate overarching questions that arguably unite them. Thus, multimodality has not frequently considered different named languages as modes, and translanguaging is still uncertain about incorporating non-linguistic resources. Second, and relatedly, some paradigms have not been able to draw on the insights generated by others to enhance their uptake or even their explanatory adequacy. For instance, and all other factors being equal, integrationism's account of the indeterminacy of the sign is arguably more nuanced and better taken up when framed as resemiotization. Third, in several of these paradigms, and especially with respect to written communication, the communication experience on which theorization has been based has, with a few exceptions such as text messaging, come largely from sources that skew models of language/communication to elite, non-lay practices. Textbooks or manuals or advertisements, by virtue of the production processes (countless author drafts, input by layers of gate-keepers) through which the publicly seen final products come into existence, are very weak residues of the original sets of expression, and therefore of qualified interest and use for understanding those forms of communication that bear fewer imprints of normative activity or consciousness. Fourth, there has been relatively scant attention in these approaches to whether semiotic eclecticism also holds true when language and communication occur in a context of private consumption primarily, rather than of public production. Little is known from these approaches about the semiotic ecology mobilized in the reception of communication.

In sum, then, we see a need for synergistic perspectives on communication generally, and in particular, reception-oriented communication. In this chapter, we offer one such perspective (i.e., multisemioticity) and apply it to a rather unique database (i.e., text annotations) to pursue two goals. First, we seek to verify the claim of a multisemiotic instinct (calqued on Li Wei's (2008) *translanguaging instinct*), according to which the human instinct is to communicate by deploying a communicative repertoire, as OrtheGuy *et al.* (2015 p. 281) put it, "without regard for watchful adherence to the socially and politically defined boundaries" of semiotic resources. These resources need not only be named languages; they can also be non-linguistic semiotics. We are interested in the extent to which this claim also holds true for reception-oriented communication. Secondly, we seek to offer a more nuanced argument regarding the integrationist position on indeterminacy of the sign. In subsequent sections, the following are addressed in turn: a theory of multisemioticity, text annotation as a database of strong residues of original thought, and

communication processes, method, analysis and discussion. In addition to implications of the analysis for reading instruction, the conclusion also offers a southern epistemological

## A theory of multisemiotcity

Multisemiotcity is a synergistic perspective on language and communication with varied scholarly antecedents and contemporary links (including but not restricted to Systemic Functional Linguistics, Multimodality and Visual Grammar, Multilingualism, Integrationism, Embodied Communication, and Linguistic Anthropology). As developed here, multisemiotcity claims that, in the ordinary course of communicating, no one single meaning-making resource does duty exclusively. Rather, it views meaning-making in any given context as involving the mobilization and weaving together of several semiotics.

Our characterization of this framework is inspired by accounts that take a broad yet granular view of both communication resources and levels for analyzing communication. Van Leeuwen's work (1996) and joint work with Kress (Kress & van Leeuwen, 2006) develop a sophisticated account of meaning-making resources in which color, gestures, artefacts, image/drawing, composition and so on have conventionalized representational but also relatively free or interpersonal meanings. Indeed, Halliday's systemic functional theory, drawn upon by van Leeuwen & Kress, not only recognizes levels and devices of a linguistic nature in the analysis of texts but, inspired by McIntosh (1961), it also acknowledges the graphological resources of written language. As fleshed out by Wales (2001), these include punctuation marks, paragraphing, spacing, capitalization, typefaces and sizes, etc. (Gómez-Jiménez, 2015). Needless to say, different named languages, registers, intonation and other enregistered forms constitute, alongside the non-verbal elements, what Rymes (2014) calls a communicative repertoire.

While the foregoing provides an account of the anatomy of multisemiotcity, there is also an oft-neglected dimension dealing with the dynamics or the physiology of these varied semiotics. Iedema (2003) proposes the concept of resemiotization to show how semiotics are mobilized and circulate in the meaning-making process. Resemiotization is "about how meaning making shifts from context to context, from practice to practice" (Iedema, 2003 p. 48). Thus, it emphasizes the mobility of different semiotics and how they get purposed, repurposed and circulated, assuming different forms and meanings in the process. Resemiotization helps in mapping out the intertextualities of these semiotic forms. As an account of creative intertextuality, it acknowledges a starting point in which a sign has been constituted, and this could be but need not be a social repository of forms and meanings that are more or less conventionalized; it underscores the historicization of meaning-making as a process in which resources are ineluctably reused across contexts; it recognizes that as contexts evolve and previous forms/meanings are recycled, the potential exists for a shift in the form or meaning of conventionalized items. These shifts, which are functional within specific activities, constitute the making and remaking of the sign in integrationism. One shift that has been amply demonstrated is demodalization, a process in which meanings are increasingly reified and distanced through a variety of strategies from their original contexts (Iedema, 2000).

There are obviously other shifts as well, and with our focus on annotation here we can draw on Jakobson's classic work on translation (Jakobson, 1959). Substituting 'intrasemiotic' for Jakobson's original 'intralingual', we are able to view shifts in semiotic material occurring in resemiotization as three types of translation: intersemiotic (e.g., where verbal signs become non-verbal or *vice-versa*), interlingual (where signs of one named language are rendered as signs of another named language), and 'intrasemiotic' (as reformulation or recoding within one semiotic system, e.g. named language, a graphological system, etc.). Expectedly, in these context-induced translations, meanings will emerge that will be in varying degrees of correspondence to conventionalized or earlier meanings. Indeed, a related concept, semiotic remediation, addresses the reuse in a new medium of semiotic material from another medium, with the same or a new/extended sense (Bolter & Grusin, 1999; Banda & Jimaima, 2015). Repurposing is the term for the latter acceptance of semiotic remediation. While semiotic remediation and specifically repurposing are easily applicable when hand-written annotations for private consumption become electronic glosses for public consumption (Antia, 2017b), such a claim in respect of hand-written annotations on hardcopy texts may be tenuous, except annotation and the primary text were considered different media.

## Text annotations: overview of a unique database

Text annotations, also called marginalia, date as far back as medieval times when readers "persistently used the interlinear spaces and margins of manuscripts to discuss, critique, and learn from the annotations left behind by earlier readers " (Wolfe & Neuwirth, 2001 p. 333). When readers underline texts, doodle, color, draw, apply punctuation marks, write cryptic or self-evident comments in extremely constrained spaces (on the margins or in between lines of an original paper or electronic text), they are inscribing moments of meaning-making in their journey through text. They are also capturing thought processes occurring simultaneously with, or punctuating, reading. In annotation, although communication is obviously produced, the overall context is one of reception, an activity that is clearly an active process.

In the terminology of annotations (cf. Marshall, 2010), a *body* is information or content that has been incorporated by a reader into a text, and this can be in a variety of forms, e.g., a note, a drawing, an asterisk. When the content is only implicit (as in highlights or underlines) rather than explicit, as in a text, the reference would be to a null-content annotation. *anchors* serve to indicate what portion of text an annotation refers to, and they can be explicit, as when lines or curvy brackets are employed, or implicit, when there is no apparent framing or delimitation. Implicit anchors can have a narrow scope referring to only a small segment of the text, or a broad scope, in which case it could be the entire document that is referred to.

Annotations have been associated with a number of functions: helping to locate information; calling attention to topics and important passages; facilitating comprehension of text; fostering critical thinking, and recording the reader's spontaneous reactions to text, among others (Wolfe & Neuwirth, 2001; Wolfe, 2000; Marshall, 2010). Annotations are a heuristic, revealing forms of reader-engagement with a text, from momentary non-engagement or disconnection (the mind taking a break and wandering away) to polemicizing and acquiescing with the text, and building on the text.

What makes text annotations a unique database from the standpoint of investigating the multisemiotic instinct is, firstly, the fact of their being oriented towards reception (rather than production as such) and, secondly, their status as a rather pristine form of communication, possibly associated with inner speech. Vygotsky (1987) regards inner speech as thinking in pure meanings – in the same way as the private notebooks of writers and scientists have been referred to as “inner speech writing” or “jottings of the mind” by John-Steiner (1992 p. 292). To the extent that Bill Collins' poem, *Marginalia*, depicts in some measure our collective experiences of annotation, then these spontaneous and self-directed reactions to text reflect a range of documented features of inner speech, including: *condensation or abbreviatedness, presence of other people as well as auditory or/and visual images of them, (self-)regulation or metacognition, dialogicality, evaluation/critique* (John-Steiner 2007, McCarthy-Jones & Fernyhough 2011, Alderson-Day & Fernyhough 2015). Readers unfamiliar with the poem can point their web browser to “Bill Collins Marginalia” to retrieve text and audio versions of this enchanting poem. Devoid as they often are of concerns around social norms of communication, annotations indeed capture some of the motivation for a linguistics of the first-order communication experience as prodded by integrationism.

## Method

As part of an ongoing project in which students' reading is approached through the lens of annotations as heuristic and resource, annotations made on recommended literature, course notes and assessment tasks are being elicited from students across disciplines at a South African university. In addition, students' commentaries on the annotations are obtained in so-called text-talks. In this chapter, annotated material relates to three different texts in English: course notes on odontogenetic tumors in dentistry, a journal article on the political economics of health, and a textbook on theories of personality in psychology. Although for reasons of space annotated data from linguistics is not included, information garnered from text-talks with students in linguistics is incorporated into the analysis.

The data is analyzed using multimodal discourse analysis (Kress, 2011), which, consistent with the theoretical perspective outlined previously, we may also refer to as multisemiotic discourse analysis. Central to analysis in this frame is the idea that a text is an ensemble of semiotic modes, and therefore the “meanings of the maker of a text as a whole reside in the meanings made jointly by all the modes in a text” (Kress, 2011 p. 37), including different named languages.

This commitment implies determining what meaning-making resources (verbal and non-verbal) are deployed in the annotations, and at what level of granularity. Thus, while the verbal would involve the identification of items enregistered as named language 1, 2, ... n or variety 1, 2, ... n, the non-verbal would comprise any images, colors, typographical features, lines, punctuation marks (e.g. exclamation, question), among others, appearing in annotations. Levels of delicate granularity may be achieved for several of these; for instance, images can be analyzed in terms of three systems of composition, namely, salience, framing and information value (Kress & van Leeuwen, 2006).

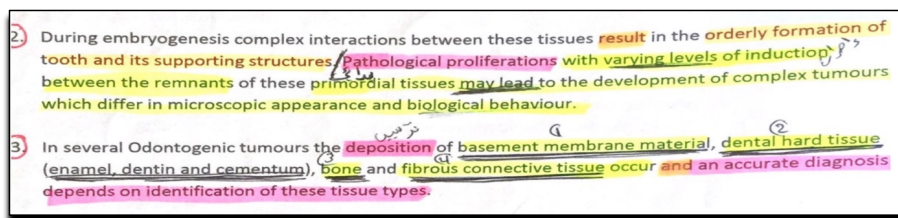
The analysis above feeds into an account of the semiotic ecology of annotations proper, a task that comprises minimally an analysis of (1) the interaction of these marginal semiotics among themselves or/and with the text segments to which they apply to acquire certain functions for text readers; (2) how these marginal semiotics translate the text segments to which they apply; and (3) the relationship between meanings ascribed to specific marginal semiotics in different literacy events of annotation and the meanings of these same semiotics as may be codified in a dictionary or by social convention. The text-talks are useful for these tasks. This approach should make it possible to verify the hypothesized multisemiotic instinct in communicating/processing communication as well to offer a nuanced perspective on the non-fixity of the sign.

## Results and discussion

In the following two sub-sections, we present and analyze data related to the two objectives of this chapter.

Is there a multisemiotic instinct in consuming communication?

The annotated material for this section is presented as Figures 1 – 3. We see multiple semiotics being mobilized for the consumption of communication as mediated by annotations. What is particularly striking in our overall corpus is the rich layering of semiotics in the annotation experience of the readers. Let us begin with Figure 1:



**Figure 1:** Annotation on course notes on odontogenic tumors by an international student (male, home-language Arabic)

In Figure 1, we see that paragraphs are numbered, as are forms of “deposition”. Besides text segments being highlighted in different colors (yellow, pink, orange) or left

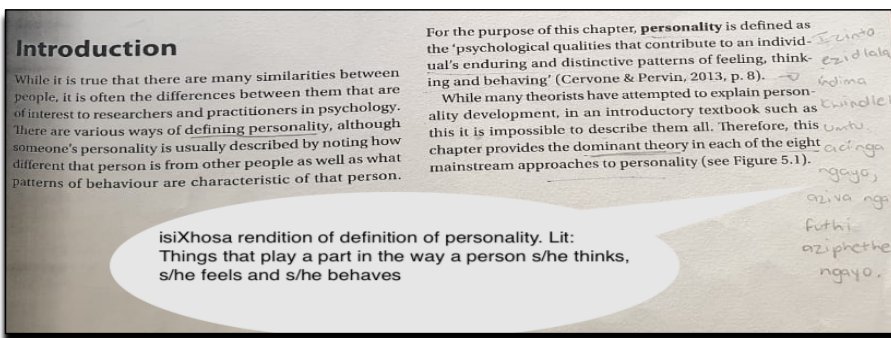
Commented [MOU1]: Note to Editors: If publishers can't reproduce image in colour, text to be introduced after orange (still within the brackets) to read: – not evident in this black and white reproduction]

unhighlighted, we also see other segments in which one color of highlight is overlaid with another, or with emphatic (double) underlining. We also see Arabic translations of “primordial” (بدائي), “induction” (احداث) and deposition (ترسيب) incorporated into the text.

In the specific (lay) experience of this student, what may perhaps be considered over-exuberant annotation, especially of the null-content type, is actually very functional. In text-talks, the student states that underlines and multi-colored highlights, but also numbering, help with attention management as an integral part of cognition. Substantial memorization is often the outcome of the way this student engages with text. In part because of a concern with written proficiency in English, the student finds himself reading a text multiple times, and acquiring a mental image of the text’s wording as a consequence. The different colors and the numbers within paragraphs serve to segment text passages into the different ideas or points they contain, and these then become the object of what appears to be this student’s phenomenal ability to memorize. In the same way, the numbers attached to paragraphs help him plan for, implement and monitor memorization.

The foregoing does not suggest that the student makes no effort to understand: see for instance, the resemiotization of English (terminology) into Arabic. In other data from this student, we find additional instances of resemiotization of text meaning, e.g., *epithelial cells*, in text being intralingually rendered in annotation as a lexically subordinate synonym, *keratinocytes*, thus allowing the student to make connections between a concept in text and a previously acquired concept; *humanpapillomavirus* in text being abbreviated as HPV in annotation, etc. In effect, we see how a wide range of semiotic resources is mobilized to dismember the original text, for it to be re-membered as a consumable or digestible piece of communication.

Although in Figures 2 and 3 that follow (excerpts on a text on personality) the semiotic ecology of annotation is not quite as busy as in Figure 1, we nonetheless see the use of both verbal and non-verbal resources.



**Figure 2:** Annotation on a textbook on psychology by a female student (home-language isiXhosa)

In Figure 2 ‘defining personality’ is underlined and processed as announcing a definiendum (term to be defined), and this null-content annotation is understood as linked to the actual

definiens (or definition) in the first paragraph of the second column, which is also underlined. On their own, these null-content annotations communicate the student's metacognition; in other words, her attempt at working out the macrostructure of the passage. The definiens in text is resemiotized into isiXhosa in annotation, and the link between text and annotation is established through an anchor in the form of an arrow. In the course of text-talks, the student points out that there are so many "big words" (*sensu* incomprehensible) in the definition provided for the term 'personality'. As a result, she reports unconsciously writing out in isiXhosa, her home language, what she thinks the definition is saying (see literal translation in the bubble). Of course, it is not known if the idea of 'enduring' and 'distinctive,' present in the English but absent in the isiXhosa translation, is a shift the student realizes can be consequential in an assessment context.

In Figure 3, we see a text passage being resemiotized as a hybrid nonverbal-verbal representation in the form of an exploded image of a labelled hamburger. Clearly, the hamburger is mobilized from a food context and repurposed as an account of three levels of consciousness: conscious (not shown as it appears in the preceding page), preconscious and unconscious. As the figure shows, the hamburger has an implicit anchor with a broad scope.

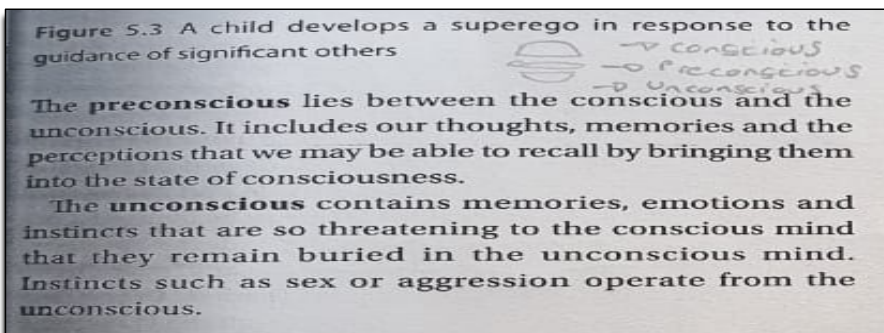


Figure 3: Annotation by same student as in Figure 2

In explaining the choice of the hamburger image-metaphor, the student says:

*I wanted to (.) show the different levels of (.) how (.) of the different types of consciousness and eh the conscious is the top of the band of the burger to (.) represent how close it is to reality. And the [unconsciousness] is at the very bottom to illustrate how further away it is from the reality. The preconscious is the juicy part or the meat or whatever one puts in the band because it contains memories one can choose to push back to the unconscious or memories that one maybe will like to tell to somebody and else brings it to the conscious mind.*

Thus far, what we see for the two readers above is how multiple semiotics across the verbal and non-verbal divide are mobilized and called to do duty of different kinds in the receptive processing of texts via annotation. The verbal repertoire of the annotations for English texts includes, besides English itself (Figure 3), Arabic (Figure 1) and isiXhosa (Figure 2). The non-verbal repertoire mobilized includes such null-content resources as underlines (Figures. 1

and 2) and highlights (Figure 1), drawing of a hamburger (Figure 3) and numbering (Figure 1). Together with data not presented here for reasons of space (e.g., question marks, exclamation marks, one-word clauses, etc.), the annotated material presented above lends credence to a multisemiotic instinct undergirding the consumption of communication. Secondly, the data also reflects several of the aforementioned features of inner speech. In the next section, we turn to the question of the fixity/non-fixity of the sign.

#### Does a sign (not) pre-exist the activity in which it is used?

Integrationism, as was explained earlier, argues that a sign is idiosyncratically constituted and is meaningful only in relation to the specific activity in which it occurs. Harris appears not to admit of the role of social convention in sign-making. His readers are encouraged, if they wish to understand sign and signification, not “to start with the notion of a social convention already *in situ*. For our own experience tells us that we attribute significations to things and events, irrespective of whether there is any social convention about the matter or not. Signs do not necessarily have a social dimension at all” (Harris, 2000 p. 67-8). This view, which refutes a practice such as repetition, has not sat well, not even with sympathizers of integrationism (cf. Makoni, 2014 p. 78).

To answer the question posed in this section, let us again consider the burger image (Figure 3). The integrationist argument of a sign being “the product of creative and purposive activity [which] does not preexist that activity as something one finds, takes and interprets” (Bade & Pable, 2012 p. 57) would appear to be so well illustrated in both the choice of the burger image and the explanation provided. The hermeneutic activity of this student is unique, and involves, among others, determinations of how distal and proximate points or levels are imagined to be relative to reality, bidirectionality, etc. Within this context, there is hardly any disputing that a burger as sign has been made, probably without antecedent, to stand for levels of consciousness – thus linking together a number of strands of the interpretative process. Even though from the standpoint of form (i.e., 3 levels) there is clearly a connection between the text account and the burger image, it can still be conceded that, as yet, there is nothing social or conventional about the burger sign in the context of a treatise on levels of consciousness. While we find confirmation here for integrationism, the view confirmed, albeit in respect of a non-linguistic sign, is not without its critics, as seen above.

The challenge is how to account for this example and others within a single frame. We comment on Figure 4 and employ text-talks on other annotation samples that raise some of the issues that Figure 4 throws up as a basis for considering how resemiotization provides a more nuanced account that is likely to enhance broader uptake of sign indeterminacy in integrationism. Let us begin then with Figure 4.

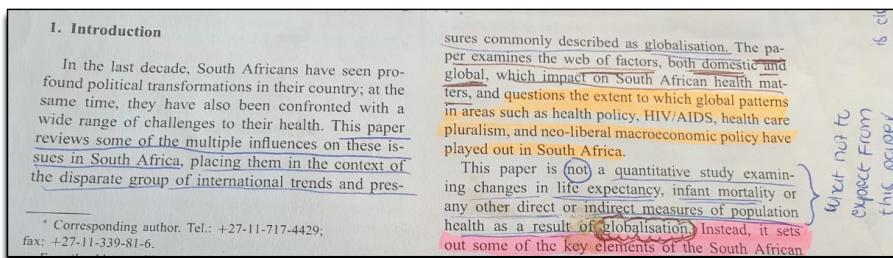


Figure 4: Annotation by a journal article on the political economy of health by a female student (home language Setswana)

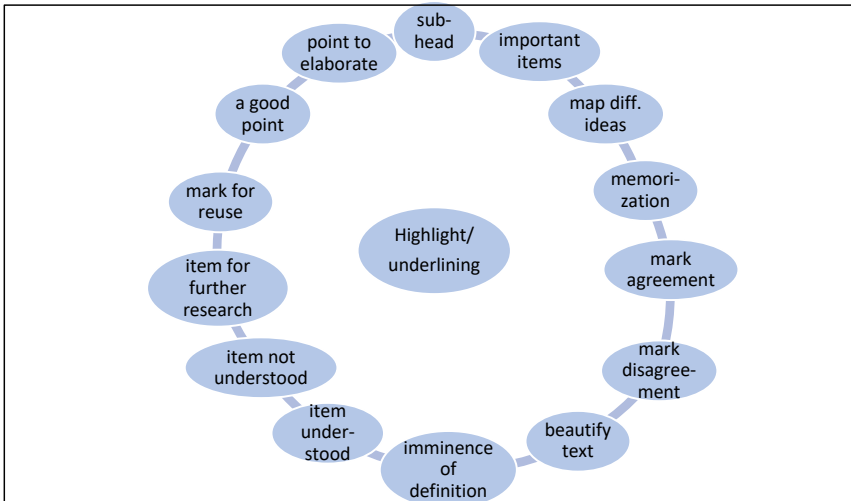
In response to a question on the meaning of the highlights, the author of the annotation in Figure 4 instructively reformulates the question to include underlines:

So usually I highlight underline things that I find important (.) right? So the different colors means that ah ah (.) it's like what's this (.) subheadings in an essay. So the different colors means the different ideas in terms of what I find important (.) maybe the different colors address certain things within this whole paragraph. [...] And then if I didn't have the different colors honestly I wouldn't have been able to identify the different ideas within (.) let's say (.) one paragraph. Yeah they alert me to the different ideas within this paragraph

The author subsequently fleshes out this general function in the context of the particular article, noting for instance that the passage underlined in brown 'examines ...,' the highlight in orange 'questions ...,' the blue ink underline states what the paper is not about, while the pink highlight states what the paper is about. Here, as in the burger example, there is hardly any basis for contesting the unprecedented novelty of these signs – brown for 'examines', etc. If we posited two levels of resemiotization, arbitrary and motivated, the intersemiotic rendering of an idea such as 'this paper examines' in text (which is a particular type of authoring practice) as color brown in annotation (a different type of authoring practice) would illustrate arbitrary resemiotization. Shifts such as these substitute socially unprecedented symbols, thus non-iconic and non-indexical visual designs, for explicit meaning conveyed in language. Motivated resemiotization would be interested in intertextual meaning ties, and this is where the discarding of the social-conventional in integrationism may sometimes be perceived as a problem.

Based on the above student's account of the uses of highlights/underlines, as well as accounts from students in a different discipline (linguistics) who had used underlines and/or highlights in their annotated texts, we probed motivated resemiotization. A picture of understandings of highlight/underline is provided in Figure 5.

Commented [MOU2]: Editors: In the event publisher cannot produce material in colour, the following text should be in brackets: (colors not evident in this black and white reproduction of Figure 4)



**Figure 5:** Meanings of underlines and highlights by students across disciplines

In each instance or set of instances of the literacy event of annotating, highlight/underline appears to be uniquely and arbitrarily constituted. Such interpretative diversity of highlight/underline as a sign clearly follows from active individual reader-engagement with the process of making meaning in text. Perhaps more importantly in this context, the diversity would be confirmation for the integrationist point.

On the other hand, it can be said that there is a core, conventionalized understanding of highlighting and underlining, suggesting that they both serve to call attention to something in text. Arguably, this core meaning is present, and what the various instances illustrate are shifts that index individual orientations to that core meaning in localized annotation activities or contexts. For some of the authors of the annotation, this core meaning is oriented towards understanding text macrostructure (sub-head, important points, map different ideas, imminence of definition); for others, the orientation is more towards a cognitive and emotional appraisal of the content to which attention has been called (mark agreement, mark disagreement, a good point, item understood, item not understood, beautify text); for yet others, there is more of an action orientation to what has been marked out (memorization, mark for reuse, point to elaborate on, item for research further). A logical chain can, therefore, be established among all three orientations – that is, from the putative conventionalized meaning of attention calling. Awareness of the macrostructure may lead to cognitive/emotional appraisal or vice versa (see below), which in turn determines what the reader is ready to do.

In sum, both arbitrary and motivated resemiotization suggest that across contexts or practices, signs are not necessarily always made anew and without regard to a collective social meaning-making experience. As an aside, the importance to readers of what may be considered exuberant highlighting is perhaps better appreciated in light of the remark by

Blommaert (2008 p. 113) that the “essential role of aesthetics in the production of meaning has ... not been widely recognized in the study of language.”

A final example from the text-talks involving question marks similarly makes the point that signs are not necessarily always made anew and without regard to a collective social meaning-making experience. Students’ comments on their use of question marks in annotating a particular text pointed to several interpretations: lack of comprehension, confusion, displeasure, problem to be returned to, and disagreement, among others. Consider the following sample views on the question mark:

A: is to show that I don't understand it so I need someone to explain it to me because if I go and search from internet I am not sure if I will understand so I need someone to explain to me before I go.... To the Internet... [Double question mark, ??] is to emphasise you must do this and one [?] is like maybe you have a little bit of understanding... [Triple question marks, ???] ah the reason I did this is ahmm I wanted to ask... because this does not look like a linguistics fieldwork kind of a thing...in fact I did not understand anything here, nothing

B: means I don't understand and I went to search...that is the meaning?... means like when I don't understand I am like what are you trying to say?

C: for me it is like I am annoyed... so moments of question mark I am just like (sighs) not dumb like but oh ok you are not getting it or like whoever the author is ah... I will come back to it or like (to author) why could you not say it easier (laughs)...

The question mark intersemiotically translates as punctuation items or passages in verbal text. While the diversity of meanings assigned to this punctuation by individual text annotators in specific practices could be said to illustrate the integrationist point, motivated resemiotization would offer a more nuanced argument. In conventional usage, a question mark is understood as a request for information. This core meaning underpins orientations in annotation towards the question mark suggestive of causal relations: I need more information because something is not clear; I need more information because I am confused; I need to get more information later; I am compelled now to get more information when I could have been spared the effort by a simpler formulation, hence my irritation; etc. Motivated resemiotization argues, then, that there is a measure of conventionality and predictability in successive uses and interpretations of the question mark in annotations.

It is instructive that Wittgenstein, acknowledged as an influence in the emergence of integrationism, himself recognized intertextual ties in manifestations of the sign. In his construct of language games, Wittgenstein (1953) argues that undergirding the various tokens of, for instance, ‘water’ – used in different actions to mean a request, a warning, a secret code, etc. – is the idea of family resemblance. Wittgenstein’s account, thus, does not overwork the sign interpreter as would an account that suggested each and every use of a sign were completely unique and unlike anything before it.

## **Conclusion: implications and a southern epistemological footnote**

As a consequence of Kuhn's paradigm crisis in sociolinguistics, a raft of new conceptualizations is forcing a rethink of the scope of language and communication as object of study, as well as also seeking to enhance the explanatory adequacy of frameworks. This chapter has brought three of such conceptualizations into some conversation, and offered multisemioticity as partial distillation of these conceptualizations. The multisemiotic lens has been applied to a relatively understudied database of first-order and receptive (rather than productive) communication – annotations. As jottings of the mind, annotations bear fewer imprints of normative consciousness and activity, and therefore are an interesting source for both investigating and enhancing the explanatory adequacy of theorization around language and communication.

Analysis of the chosen database allows for the claim that there appears to be a multisemiotic cognitive architecture for consuming text. We have seen how in the course of annotation as self-directed, more or less spontaneous, communication, our readers mobilize diverse verbal and non-verbal resources at varying levels of delicacy: underlines and highlights (and specific colors), English, Arabic, isiXhosa, numbers, arrows, question marks, etc. We see how an entire semiotic ecology supports a range of functions, including understanding the macro-structure of text, marking out items as especially worth attending to for a variety of reasons, understanding across named languages, and interpreting on the basis of analogy, among other kinds of meaning-making.

Our database also suggests that there are processes of translation or resemiotization at work within this ecology and in its relation to the original texts to which annotations refer. Kress (2011) makes the point that in "the semiotic work of interpretation, the internal re-making the text, the interpreter of a semiotic entity also produces a coherent, newly made text, the result of her or his interpretation." Our data shows that items in the new text do not necessarily exclude or forbid logical or meaning ties to material in the prompting text or to previous uses of these items. Underlines and highlights or question marks were seen to have core meanings, and although their use in the activity of annotation differed somewhat from these core meanings, there were intertextual meaning ties.

Let us turn briefly to the overall project on annotation in reading within which the research reported here arose. Findings of this study in which translanguaging, multimodality, and integrationism have been funnelled into multisemioticity can be operationalized as a pedagogy for reading. The overall message seems to be that annotations frequently make it possible for texts to be first dis-membered, then re-membered as a consumable or digestible piece of communication for a particular reader in their more or less idiosyncratic hermeneutic activities.

Given the well-known three-level modelling of reading (surface, deep, and critical), a multisemiotic perspective draws attention to the range of resources available for these

purposes, of course without constituting the resources into a prescribed code. The latter point cannot be emphasized enough, and what we do below is only to exemplify the diversity of options. At a surface reading level, where the concern may be to get the gist of the text, possibly also to figure out the macrostructure of the text and generally to determine how to allocate attentional/cognitive resources, a number of points have become obvious from this study. Highlights can serve to segment ideas, with specific colours sometimes being used consistently, in the same way that numbers can be deployed for similar purposes. Lines, with or without arrow heads, can mark out related ideas on the same page, in the same way that other symbols (asterisks, plus-signs, etc.) can serve the same purpose on the same page or across pages. Same language (variety) or a different language (variety) can be used to gloss vocabulary or to reformulate clauses/ideas considered difficult at first pass.

At a deep reading level, where the focus moves beyond getting the gist to making one's own sense of text-mediated knowledge, resemiotization involving movement from text to image or image to text would be an option, as would be summarizing/reformulating content in text or bulleted point form – in the same but especially in a different language. Question marks or other punctuation employed to indicate ideas that need to be followed up, as other symbols and emoticons expressing emotional reactions to text, would also belong here.

At a critical reading level, symbols communicating acquiescence or polemicization with text contents could be drawn upon, such as an X sign, a question mark, ticks, one-word clauses (No! Yes! What? Kidding?) or multiple word clauses. Available options might also include letter/font size, capitalization, and so on.

Let us conclude with a southern epistemological footnote. Modeling of reading has tended to assume that reading is a monolingual and monomodal process, sometimes also one of telementation. In foregrounding the experiences of reading in a context of the Global South, experiences that have not always made into mainstream models of reading, this chapter has underscored alternative ways of doing literacy. In contexts of southern multilingualisms, if not also elsewhere, reading reflects a multisemiotic instinct, unfolding as it does through a rich and interacting repertoire of communicative resources.

## Acknowledgment

Bassey E. Antia is grateful to UWC's University Development Capacity Grant and the African Digital Humanities Program for funding to support his project on text annotation/electronic glossing.

## References

- Alderson-Day, B. & Fernyhough, C. (2015). Inner Speech: Development, Cognitive Functions, Phenomenology, and Neurobiology. *Psychological Bulletin*, 141(5), 931–965.
- Antia, B.E. (2017). Electronic terminology glosses, communities of practice and multilingual academic literacies. *eDITion. Fachzeitschrift fuer Terminologie*, 1, 13-17.
- Antia, B.E. (2017). Shh, hushed multilingualism! Accounting for the discreet genre of translanguaged siding in lecture halls at a South African university. *International Journal of the Sociology of Language*, 243, 183 – 198.
- Allwood, J. (2008). Dimensions of embodied communication—towards a typology of embodied communication. In I. Wachsmuth, M. Lenzen & G. Knoblich (Eds.), *Embodied Communication in Humans and Machines* (pp. 257-284). Oxford University Press.
- Bade, D. & Pablé, A. (2012). Signs unfounded and confounded. A reply to Søren Lund. *RASK. International Journal of Language and Communication*, 35(1), 43 – 85.
- Banda, F. & Jimaima, H. (2015). The semiotic ecology of linguistic landscapes in rural Zambia. *Journal of Sociolinguistics*, 19(5), 643 – 670.
- Blommaert, J. (2008). *Grassroots literacy: Writing, identity and voice in Central Africa*. Routledge.
- Bolter, J. & Grusin, R. (1999). *Remediation: Understanding new media*. MIT Press.
- Canagarajah, A. S. (2011). Translanguaging in the classroom: Emerging issues for research and pedagogy. *Applied Linguistics Review*, 2(1), 1-27.
- Canagarajah, A.S. (2013). *Translingual practice: Global Englishes and cosmopolitan relations*. Routledge.
- Fishman, J.A. (1967). Bilingualism with and without diglossia; diglossia with and without bilingualism. *Journal of Social Issues*, 23(2), 29–38.
- García, O. (2009). *Bilingual education in the 21st century: A global perspective*. Wiley-Blackwell.
- Gómez-Jiménez, E. (2015). An introduction to graphology: Definition, theoretical background and levels of analysis. *Miscelánea: A Journal of English and American Studies*, 51, 71 – 85.
- Harris, R. (1996). *Signs, language, and communication: Integrational and segregational*

*approaches*. Routledge.

- Harris, R. (2009). Implicit and explicit language teaching. In M. Toolan (Ed.), *Language teaching. Integrational approaches* (pp.24-47). Routledge.
- Harris, R. & Hutton, C. (2007). *Definition in theory and practice*. Continuum.
- Hopper, P. (2000). The ideal of consistency in thinking about language. *Southwest Journal of Linguistics*, 19, 1 – 10.
- Iedema, R. (2000). Bureaucratic planning and resemiotisation. In: E. Ventola (Ed.), *Discourse and community: Doing functional linguistics* (pp. 47-70). Narr.
- Iedema, R. (2003). Multimodality, resemiotization: Extending the analysis of discourse as multi-semiotic practice. *Visual Communication*, 2(1), 29–57.
- Jakobson, R. (1959). On Linguistic aspects of translation. In: R.A Brower, (Ed.), *On Translation* (pp.232-239). Harvard University Press.
- John-Steiner, V. (1992). Private speech among adults. In: L.E. Berk and R.M. Diaz (Eds.), *Private speech: from social interaction to self-regulation* (pp.285-296). Erlbaum.
- Kress, G. (2010). *Multimodality. A social semiotic approach to contemporary Communication*. Routledge.
- Kress, G. (2011). Multimodal discourse analysis. In: J. P. Gee and M. Handford (Eds.), *The Routledge Handbook of Discourse Analysis* ( pp. 35 – 50). Routledge.
- Kress, G. & van Leeuwen, T. (1996). *Reading images: the grammar of visual design*.  
Routledge.
- Kuhn, T.S. (2012). *The structure of scientific revolutions*. 4<sup>th</sup> edition. The University of Chicago Press.
- Lewis, G., Jones, B. and Baker, C. (2012). Translanguaging: Origins and development from school to street and beyond. *Educational Research and Evaluation*, 18, 641 – 654.
- Li Wei. (2018) Translanguaging as a practical theory of language. *Applied Linguistics*, 39(1), 9 –30.
- Lund, S. (2012). On Professor Roy Harris's 'integrational turn' in linguistics. *RASK. International Journal of Language and Communication*, 35, 3 – 42.
- Makalela, L. (2015). Moving out of linguistic boxes: the effects of translanguaging strategies for multilingual classrooms. *Language and Education*, 29(3), 200 – 217.

- Makoni, S. (2014). The Lord Is My Shock Absorber: A sociohistorical integrationist approach to mid-twentieth-century literacy practices in Ghana. In: A. Blackledge & A. Creese (Eds.), *Heteroglossia as practice and pedagogy* (pp. 75-97). Springer.
- Marshall, C.C. (2010). Reading and writing the electronic book (synthesis lectures on information concepts, retrieval, and services #9).  
DOI: 10.2200/S00215ED1V01Y200907ICR009
- McCarthy-Jones, S. & Fernyhough, C. (2011). The varieties of inner speech: Links between quality of inner speech and psychopathological variables in a sample of young adults. *Consciousness and Cognition*, 20(4), 1586 – 1593.
- McIntosh, A (1961). Graphology and meaning. *Archivum Linguisticum*, 13(2), 107 – 120.
- Otheguy, R., García, O., & Reid, W. (2015) Clarifying translanguaging and deconstructing named languages: A perspective from linguistics. *Applied Linguistics Review*, 6(3), 281 – 307.
- Rymes, B. (2014). Communicative repertoire. In: C. Leung & B. Street (eds.) *Routledge companion to English language studies* (pp.287-301). Routledge.
- Vygotsky L. S. (1987). *Thinking and speech. The collected works of Lev Vygotsky* (Vol. 1). Plenum Press.
- Wales, K. (2001). *A dictionary of stylistics*. Longman.
- Wittgenstein, L. (1953). *Philosophical investigations*. Transl. G.E.M. Anscombe. Basil Blackwell.
- Wolfe, J.L. (2000). Effects of annotations on student readers and writers. *Proceedings of the fifth ACM conference on digital libraries*. 19–26.  
<https://doi.org/10.1145/336597.336620>
- Wolfe, J.L. & Neuwirth, C.M. (2001). From the margins to the center. The future of annotation. *Journal of Business and Technical Communication*, 15(3), 333 – 371.