Chapter 1

Introduction: Exploring semiotic remediation

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_Exploring Semiotic Remediation as Discourse Practice_ offers a new synthesis of current (and sometimes long-established) theoretical and research trajectories, arguing for a fully-realized dialogic approach to semiotic practices-in-the-world. Taking up semiotic remediation as practice draws attention to ‘the diverse ways that humans’ and nonhumans’ semiotic performances (historical or imagined) are re-represented and reused across modes, media, and chains of activity’ (Prior, Hengst, Roozen, & Shipka, 2006, p. 734). For current studies of language, discourse, literacy, new media, and sociocultural activity, the key terms in the title of this volume – _semiotic, remediation, and discourse practice_ – represent an argument for particular ways to address a pressing question: How do we understand semiotics/multimodality theoretically and investigate it methodologically? We have chosen _semiotic_ rather than multimodal because semiotic signals our broad interest in signs across modes, media, channels, and so on, whereas multimodal depends on a definition of mode, which has not yet been clarified in the literature and seems to suggest exclusions (mode, for example, as opposed to medium). _Remediation_ points to ways that activity is (re)mediated – not mediated anew in each act – through taking up the materials at hand, putting them to present use, and thereby producing altered conditions for future action. A focus on discourse _practice_ is critical because semiotic remediation is at the heart of _sociogenesis_ (the people-, artifact-, and society-making dimensions of all activity) as well as of...
2 Introduction: Exploring Semiotic Remediation

Situating discourse (that is, discourse situated both in concrete, historical acts and across extended trajectories). This approach is informed by multiple lines of scholarship that highlight chains of media and chains of mediation in social practices, including Bolter and Grusin’s (1999) notion of remediation (transformations across media); Latour’s (1999, 2005) account of technical mediation in actor-network theory; recent articulations of mediated discourse analysis (Norris & Jones, 2005; Scollon 2001; Scollon & Scollon, 2003, 2004); Linell’s (1998) notion of recontextualization; Iedema's (2001, 2003b) analyses of resemiotization; Hutchins’ (1995) description of distributed cognition as ‘propagation of representation across representational media’ (p. 118); Fairclough’s (1992, 2003) attention to intertextual and interdiscursive chains; work on genres linked in sets or systems (Bazerman, 1994; Bazerman & Prior, 2005; Devitt, 1991, 2004; Swales, 2004); anthropological studies of dialogic discourse practices (Agha, 2007; Hanks, 1996a, 2001; Irvine, 1996; Keane, 1997; Silverstein, 1993, 2003, 2005); and studies of mediated activity (Cole, 1996; Valsiner & Rosa, 2007; Wertsch, 1991) derived from Vygotksy’s work. Semiotic remediation as practice then is fundamental to understanding the work of culture as well as communication; it calls on us to attend to the diverse ways that semiotic performances are re-represented and reused across modes, media, and chains of activity.

The multidisciplinary group of contributors (representing writing studies, speech and hearing sciences, communication studies, applied linguistics, and education) in Exploring Semiotic Remediation as Discourse Practice articulates diverse theoretical perspectives that support the study of semiotic remediation practices while also offering case studies that investigate semiotic remediation and discourse practice in innovative ways. The chapters are designed to combine rich theoretical frameworks and methodological tools with close analyses of situated activity, to highlight how semiotic remediation operates in human lifeworlds. Overall, this collection details ways of going beyond analysis of multimodal artifacts to take up semiotic remediation as
practice. In this introduction, we unpack some dimensions of the key theoretical terms of this approach, suggest the kind of methodological implications this framework entails, introduce the individual chapters in relation to this framework, and conclude by considering some future agendas (theoretical and empirical) that flow from a focus on semiotic remediation.

Frameworks for a Dialogic Semiotics

The work of Voloshinov (1973, 1976), Bakhtin (1981, 1986), and their circle (for example, Bakhtin & Medvedev, 1978) produced the key dialogic insight: language and signs need to be understood as concrete, historical, situated, and social phenomena rather than as abstract, depersonalized, and unsituated systems. They signaled this shift in part by contrasting the usual units of language to notions of speech – contrasting linguist’s sentences, for example, to people’s situated utterances. The sentence in linguistics has typically been represented as having no concrete speaker and situation; it is supposed to be simply a string produced using the lexical resources of a language in accordance with its rules for combining and ordering. Voloshinov and Bakhtin defined an utterance as the combination of what is historically produced by an embodied, interested person in a meaningful situation and what is interpreted actively and responsively by those who receive it.

Their dialogic insight has had far-reaching implications for theories of discourse. For example, when Voloshinov (1973) examined reported speech in the 1920s, he challenged the received notions of direct and indirect reported speech, pointing to free indirect, quasi-direct, and other subtle means by which representations of talk, text, thought, and stance seep around and through the putative borders of reported speech – through the framed (he said, she said), syntactically signaled (by, for example, tense shifting), lexically realized (as register variation), and nonverbally highlighted (by gestural and paralinguistic cues in talk; quotation marks and
other typographic-visual conventions in text) markers that signal listeners or readers that someone else’s words are being presented. He highlighted the typically unmarked ways that others’ words and signs are routinely but intricately woven into the very fabric of our utterances and acts. In the process, reported speech and the question of voicing – of who is talking – shift from being isolated, perhaps relatively rare issues of linguistic form to being one face of a central principle for using signs – the way we constantly take up others’ signs, use them, and to varying degrees make them our own (or not). Attention to how signs are used and how they are made one's own opens up not only a broader, semiotic field of communication, but also the critical question of sociogenesis – a concept that unites individual learning and social formation as questions of situated and mediated practice. It is important to stress that Voloshinov and Bakhtin not only articulated dialogic activity as the ground for communication, but also as the site where people become who they are and where sociocultural formations (church, state, profession, class, social group) are constantly being made and remade. Although the notion of semiotic remediation we propose is very much in line with Voloshinov's (1973) call for a dialogic theory of signs, his work, along with the more widely taken-up versions of Bakhtin (1981, 1986), have largely been applied to retheorize elements of language practice.

Key scholars (such as Clark & Gerig, 1990; Goffman, 1974, 1981; Hanks, 1990, 2001; Haviland, 1993; Irvine, 1996) have called for theories that address a family of semiotic phenomena (replays, demonstrations, indexicality, participation frameworks, reported speech, transpositions) in an integrated fashion. Working from Goffman’s (1974, 1981) analyses of complexly laminated and embedded frames and footings, Hanks (1990) argued that such diverse phenomena as ‘explicit quotation (direct speech), indirect report, "transposition" of deictic categories, certain kinds of highly creative reference, and the subtle shifts in perspective that can be seen to underlie much of deictic reference in connected discourse’ (p. 197) all depend on
participation frameworks and indexical grounds being *decentered* from, and *recentered* in, the phenomenal here-and-now of interaction. Hanks (1990) and Irvine (1996) make the critical argument that these complex indexical framings of participation, context, and reference should lead not to an ever-expanding catalogue of categories (such as in Levinson, 1988, or Semino & Short, 2004), but more parsimoniously and flexibly to a small set of operations (such as decentering and recentering) that can generate very complicated semiotic effects. Irvine’s (1996) response to Levinson’s (1988) attempt to formalize participation roles by identifying a universal set of binary features (e.g., ± motive) succinctly identifies the theoretical problem of attempting to classify the complicated semiotic effects people can produce in diverse and ever-changing sociocultural situations:

I believe that Levinson and others who would decompose Speaker and Addressee into a set of analytically primary components have got the analysis back-to-front. To focus on the role fragments, rather than the fragmentation process, reifies the fragments and, presumably, limits them to a finite number. Yet, one might well suspect that the number of such participant roles (PRs) arrived at by the decompositional approach may prove endless. (p. 134)

Irvine (1996) offers compelling analyses of the complex semiotic effects of the fragmentation process, noting not only how layering of participation frameworks in multilingual interactions can produce complex representational transpositions, but also (in her analysis of Wolof wedding insults) how a present conversation or text is produced and understood through a finely-tuned cultural and situated sense of its history of production and its anticipated forms of reception. She argues that past, present, and future *shadow conversations* suffuse the present interaction at hand and represent a critical resource for participants’ production and understanding of discourse.
Taking a semiotic perspective, we suggest, would shift our attention from shadow conversations to, in effect, *shadow acts*, with talk representing only one dimension.

On different grounds, Kress and Van Leeuwen (2001) argued for the value of articulating multimodal principles (like chunking or perspective) rather than mode-specific theories of discourse (such as accounts of paragraphing grounded in certain textual genres as opposed to general accounts of chunking across modes). In a recent article (Prior et al., 2007), we and two other contributors to this volume, Kevin Roozen and Jody Shipka, reexamined the notion of reported speech (or represented speech and thought, or represented discourse). Drawing on theories of Goffman (1974, 1981), Clark and Gerig (1990), Hanks (1990, 2001), and Irvine (1996) and focusing on case studies of three sites (a family pretend game, a college composition course task, and a comedy skit), our analyses examined not only how canonical examples of reported speech involved other semiotics (paralinguistics, gesture, dress, interactional formats), but also how people dialogically envoiced and embodied others (or copied material features of texts/objects) when they produced represented speech, thinking, and writing. We noted how intertextual and interdiscursive chains of signs routinely involved both transformations in media and multiple forms of mediation. In proposing the shift from a focus on reported speech to a focus on *semiotic remediation practices*, we aimed not simply to expand the range of ‘reported speech’ but to bring those discursive phenomena into the kind of broader semiotic framework that Hanks (1990) evoked. In other words, the concept of semiotic remediation practices is not intended as just a way to revise, or attend differently to, any single existing category of discourse.

Semiotics has long wagered that general principles and patterns may be identified across modes, codes, and media, a wager recently rearticulated by researchers (see, for example, Bolter & Grusin, 1999; Kress 1997; Kress & Van Leeuwen 2001; Lemke, 1998) alert to the multiple impacts of computer and communication technologies as they examine new media and
transformations across modes and genres. However, much of this attention to multimodality in new media has so far addressed a narrow range of oppositions: print texts vs. electronic screens, language vs. the visual, critique vs. design. Multimodality has primarily been taken up as an issue of the composition of artifacts rather than engagement in processes, of representational forms rather than situated sociocultural practices (see Norris, 2004, for an exception). Texts on multimodality (for example, Baldry & Thibault, 2007; Kress & van Leeuwen, 1996, 2001) have provided valuable perspectives and observations, but have focused on multimodal objects rather than multimodality as situated activity. Attention to multimodal production and reception is limited; analysis of ‘reading’, for example, does not examine the concrete practices of readers but rather infers these processes from the objects. Kress's Literacy in the New Media Age (2003) is an example of a key text that fits this pattern. Van Leeuwen and Jewitt's otherwise excellent Handbook of Visual Analysis (2001) includes only one chapter – Goodwin's examination of practices of professional vision – that examines the visual as an issue of situated action. In spite of the growing attention to situated discourse practices and to theories that link communication with social practice, learning, and activity, strong links between multimodality and questions of situated learning, identity and social formation remain rare. Against this backdrop, Exploring Semiotic Remediation as Discourse Practice argues for an approach that is grounded in a dialogic understanding of semiotics, that focuses on the situated and mediated character of activity, and that recognizes the deep integration of semiotic mediation with the practices of everyday sociocultural life.

As discursive practice operating in sociocultural worlds, semiotic remediation is closely tied to recent work on indexicality, indexical orders, and chronotopes (see Blommaert, 2005; Hanks, 1990; Prior & Shipka, 2003; Silverstein, 1993, 2003). Developing Bakhtin’s (1981) early discussions of chronotopes as embodied and represented space-times, a number of researchers
Introduction: Exploring Semiotic Remediation

(Leander, 2001; Lemke, 2005; Prior, 1998, Prior & Shipka, 2003; Silverstein, 2005) have articulated the centrality of the notion of *chronotopes* to understanding how participants in a moment of discourse routinely navigate multiple representational worlds or indexical fields on the one hand, and also how such situated interactions link to past and projected histories of representation. Although Pierce (1998) made clear that the three sign processes (iconic, indexical, and symbolic) are not mutually exclusive categories, understanding how these processes dialogically blend in interaction – how they operate across times and across quite different media – remains a theoretical challenge. Semiotic remediation thus represents a basic dialogic process that interdiscursively weaves together modes, media, genres, and events and serves as a foundation for indexical and chronotopic orders.

Taking a dialogic approach to semiotics calls for attention to the range of semiotics that are present and consequential in interactions rather than taking single-mode analyses (of talk, of writing, of gesture, of visual image) as autonomous communicative domains. It also calls for understanding signs of all kinds as dialogic, not generated out of abstract systems, but drawn from a history of sign use, tuned to the present interaction, and oriented to future responses and acts. We argue it is now time to embrace Voloshinov's original vision, to pursue a truly dialogic semiotics.

Remediation: Chains, Media(tions), and Genres

The notion of remediation focuses attention not only on the laminated (layered, fused, blended) heterogeneity of semiotic means that are simultaneously at play in any situated interaction, but also on the location of any interaction – and its convergence of particular tools, people, and environments – within historical trajectories that reach from past into present and project forward to near- and long-term futures. In terms of practices, semiotic remediation is
fundamentally both synchronic and diachronic. Temporal chains of semiotic production, reception, representation, and distribution have been traced in several lines of research. Bolter and Grusin’s (1999) account of remediation explores, for example, how novels are transformed into movies that spin off video games that lead to web fanzines and branded product lines, a process sometimes referred to as repurposing. Bolter and Grusin argue that certain design logics – particularly the tension between a desire for transparent immersion and the value of very foregrounded and conscious hypermediation – operate across such diverse media as paintings, film, videogames, and furniture. Their account of remediation focuses on questions of how to understand semiotic artifacts (material representation) that contain multiple semiotic modes (text and images, text and sound, and so forth) and on the implications of changing technologies of distribution (such as the internet); however, it does not attend to the many emergent remediations that occur in the situated production and reception of such artifacts.

Multimodality has also been identified in the transformative trajectories of discourse across times and places, in intertextual chaining (Fairclough, 1992) that often involves shifts in mode and genre. Over the last 15 years, genre analysts have been shifting from a focus on genres as isolated phenomena to a recognition of how specific types of texts or types of textual performances are formed within, infused by, and constitutive of systems of genres. These systems of genres have been variously described in terms of chains (Fairclough, 2003; Swales, 2004), colonies (Bhatia, 2002), repertoires (Devitt, 2004; Orlikowski & Yates, 1994), sets and systems (Bazerman, 1994, 2004; Devitt, 1991, 2004), and ecologies (Spinuzzi, 2004). Theorists have also begun to highlight ways that genre theory has privileged public texts whose primary functions are informational, rhetorical, or aesthetic. For example, Swales (2004) has identified the category of occluded genres (which are normally not public), and Spinuzzi (2004) has highlighted the way many workplace genres are designed primarily to mediate activity (to work, for example, as aids
Introduction: Exploring Semiotic Remediation

to thinking and action rather than as means of inter-office or external communication).

Situated genre analyses in specific sites (see Bazerman, 1999; Berkenkotter, 2001; Kamberelis, 2001; Molle & Prior, 2008; Prior, 1998) have highlighted ways that literate activity involves multimodal chains of genres. For example, a group may engage in planning (which might include presentational and conversational talk as well as written notes, drawings, diagrams, and so on); that planning discourse may lead to a series of written drafts that are perhaps reviewed through a series of oral and written responses (with annotational genres including textual editing, marginal comments, and extended comments); and all of this activity may culminate in a final written text that is then read in certain typified ways and prompts other responses. Prior (1994, 1995, 1998), for example, traced chains of discourse across the talk and texts of a sociology group (graduate students and faculty in a seminar linked to a research project) as they co-produced institutional documents (examination papers and theses) as well as disciplinary texts (conference papers, technical reports, journal articles, book chapters). Likewise, Berkenkotter and Ravotas (1998) and Berkenkotter (2001) examined how the oral talk of a psychotherapy session was converted first into the therapist’s notes (including marked and unmarked direct representations of the client’s speech as well as implicit intertextual allusions to formal standardized categories of mental disease) and then those notes were further repurposed to produce case summaries and to submit claims for insurance payments. Their account of this recontextualization highlighted not only movements from talk to text, but also how the shifts in genres and discursive orders re-categorized the client’s narratives of lived experience in terms of the formal diagnostic codes found in DSM-IV (the fourth edition of the manual of official diagnostic symptoms of mental illnesses). Bowker and Star (1999) have examined the pervasive and profound role such categorization schemes play in social organization. The genres in such chains of semiotic production are often both relatively occluded and more oriented to mediational
or processual purposes of individuals or groups than to wider public exchange.

Several lines of work have taken up chaining, not only of discourse across media but also of the whole range of material artifacts. Latour’s actor-network theory (ANT) and his research on science and technology have focused on the circulation of coordinated series of objects and representations. At the Salk Institute, Latour and Woolgar (1986) traced the ways brains were converted into purified chemical substances and then into graphic representations generated by measuring devices, representations that were re-represented in papers that were then cited and summarized in grant proposals. Their analyses focused on ways that the scientists coordinated these chains of inscription. Latour (1999) traced the way a stretch of rainforest in the Amazon was inscribed with posts and markers (overlaying the land with a coordinate geometry); the way soil in these grids was sampled and stored in a wood box that abstracted that geometry; and the way that the box was transported to a French laboratory, where the soil samples were analyzed and converted into numbers that were written up in a paper that was distributed in an issue of a journal. He argues that the structure of such chains challenges philosophical notions of a yawning referential chasm between things and words; instead, he documents specific practices of alignment as materials and signs are transformed across media, producing cascades of circulating reference marked by small gaps and quite modest leaps.

Attending to chains of signs and materialities together has implications not only for the kind of epistemological questions that science studies has typically raised (as seen routinely in Latour’s work), but also for the relation of semiotics to things and to political economy across quite different social domains. Exploring the implications of understanding signs as multifunctional and meditating on the functions of Wolof griots (traditional bards), Irvine (1989) began to delineate the diverse ways that signs and objects, semiotics and political economy, may be linked:
Introduction: Exploring Semiotic Remediation

The verbal sign...relates to a political economy in many ways: by denoting it; by indexing parts of it; by depicting it (in Peircean terms, the iconic function, illustrated here in Wolof praise-singing); and by taking part in it as an object of exchange. These multiple functions may all co-occur, because they merely reflect the multifunctionality of language in general. Saussure’s segregation of sign-value from the world or material values is linked to his focus on only one of language’s functions – its role as a vehicle for referential communication. To acknowledge that language has many functions, and therefore that signs relate to the material world in many ways, including as objects of exchange, is important to understanding language’s role in a political economy. (p. 263)

This attention to the materiality of signs challenges the duality of sign and object. For semiotic remediation, it suggests attention to trajectories of material and discursive transformation.

Irvine’s call for more complex renderings of the value of signs is well illustrated in Keane’s (1997) analyses of representational practices among the Anakangelangese people of Indonesia, with particular attention to how ritual action and kinship relations were accomplished through events where the exchange of words and the exchange of objects (food, metals, cloths, tools, animals, ancestral valuables) had to flow together for success and where disruptions to either could lead to hazard and conflict. Looking at bureaucratic practices, Iedema (2001, 2003a, 2003b) traced the way a hospital renovation project was worked out not only over a series of interactions in talk, text, and drawings, but also through object-production (from texts and drawings to architect’s models all the way to a full building on a specific site). Iedema’s conceptualization of resemiotization integrates all these chained (re)materializations into a single historical trajectory.

In analyzing the complex chains of rhetorical, material, economic, promotional, scientific, legal, and illegal activity that Thomas Edison performed as he pursued the electrification of everyday life, Bazerman (1999) proposes the notion of heterogeneous symbolic engineering to capture the
dense interpenetration of symbolic, social, and material strategies in this history.

Attention to remediation calls for careful tracing of semiotic activity across chains and for a subtle and precise vocabulary for practices of alignment as well as processes of transformation across media, genres, and events. What is critical in the last set of approaches we have discussed (those of Irvine, Keane, Iedema, Latour, and Bazerman) is the full integration of signs, people, material, and activity into a single coherent framework and into continuous (if heterogeneous) historical trajectories.

Discourse Practice and Sociogenesis

Practices are marked by repeatability and recognizability, a notion Bourdieu (1990) characterizes in terms of *habitus* – embodied ‘systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, …principles which generate and organize practices and representations’ that arise in navigating the repeated territory of everyday life (p. 53). Bourdieu goes on to note:

This durably installed generative principle of regulated improvisation is a practical sense which reactivates the sense objectified in institutions. … the *habitus*, which is constituted in the course of an individual history, imposing its particular logic on incorporation, and through which agents partake of the history objectified in institutions, is what makes it possible to inhabit institutions, to appropriate them practically, and so to keep them in activity, pulling them from the state of dead letters, reviving the sense deposited in them, but at the same time imposing the revisions and transformations that reactivation entails. (p. 57)

However, he also highlights the game-like character of *practice* as experienced by people immersed in uncertain, temporally unfolding action in concrete settings. Much as discourse is
always new but contextualized and contextualizing (or presupposing and entailing), practice too involves the weight of trajectories of history, the emergent qualities of the immediate situation, and the disruptive spark of future goal orientations. Practice, like dialogic approaches to discourse in general, then needs a theory of connection that accounts for the re-, for what makes something a re-petition, a re-cogniton, a re-play, a re-presentation, a re-use. A re cannot be re- because it involves simple relations of identity (that is, because it is the same thing again); instead, the relations that we define as re-, very like those that Silverstein (2005) interrogates as co- (for example, co-text), must emerge from some mix of indexical, iconic, and/or tropic mappings between events or between entities.

Miller and Goodnow (1995) define practice succinctly as ‘actions that are repeated, shared with others in a social group, and invested with normative expectations and with meanings or significances that go beyond the immediate goals of the actions’ (p. 7). As developmental psychologists, they approach notions of practice and activity with a particular interest in ‘describing development-in-context, without separating child and context and without separating development into a variety of separate domains’ (p. 8). Their synthesis takes up notions of practice as a site of social and moral order, emphasizing the ways ongoing participation (see Lave and Wenger, 1991; Rogoff, 1990) in practice transforms both people and practices themselves. It locates practices in histories and emphasizes the consequential nature of participation for practice (‘development may be regarded as the tightening or the recontextualization of situation-bound understandings,’ p. 13). Taking a practice perspective, Wortham (2006) offers an in-depth analysis of how several students’ identities were shaped by repeated engagement in mundane, fleeting discourse practices in certain kinds of classroom discussions. The repeated, recurrent, historically dense character of social practice makes it a kind of web that works to both channel and support development.
Hanks’ (1996b) articulation of a practice approach to discourse centers around the notions of *communicative practices* and *discourse genres*. Drawing especially on Bourdieu and Bakhtin but also a range of anthropological and phenomenological approaches, Hanks emphasizes the *plurifunctionality* of discourse, the interpenetration of ‘language and the world of human experience’ (p. 236) as people inhabit the world communicatively (rather than simply represent it linguistically). He points to the power of Bourdieu’s *habitus*, as it accounts for discursive regularities in terms of dispositional habits built by routine rather than relying on *a priori* shared rules. The dispositional dimension of *habitus*, he notes, ‘is perspectively centered rather than projecting into action the view-from-nowhere common to rule-based systems’ (p. 239). He proposes discourse genres as a unit of analysis for approaching communicative practice and notes their fundamentally indexical character:

> How a type of practice articulates with its setting differs from the casual ellipsis of everyday conversation to the elaborate presence of the court, the examination room, the legislative assembly, and the place of religious observance, *as all are spaces whose social values are inscribed upon the practices that take place in them*. This inscription may be evident in the words, syntax, or discourse organization of talk or in dress codes, body practices, the rights to speak, the requirement of silence, and so forth. The important point is that elements of the practice genre systematically index its linkage to the space of engagement. (Hanks, 1996b, p. 245)

Although flexible and emergent, discourse genres also highlight the weight of deeply furrowed and semiotically diverse routines not only in producing immediate phenomenological social orders, but also in providing a matrix for enculturation of social practice (as individuals appropriate and reactivate practices and transform them in appropriation and use).

The approach to discourse practices that we take here shares many tenets with emerging work
on mediated discourse analysis (Norris, 2004; Norris & Jones, 2005; Scollon, 2001; Scollon & Scollon, 2003, 2004). Scollon (2001) argues that discourse analysis should begin with the mediated activity of individuals in situated sites of engagement, but should view such sites always as linked to broader histories of practice and to the historical production of mediational means. To capture the hybrid, laminated quality that emerges when multiple histories are tied together in situated actions, he proposes the *nexus of practice* as something akin to Bourdieu’s (1990) *habitus* – as a thickening and stabilizing of a site of engagement and a constellation of social practices through repeated cycles of semiosis and action over time and space, what Scollon (2008) comes to call discourse itineraries. Scollon (2005) illustrates this theoretical approach through reflections on laying a hardwood floor. He notes how a professional had resemiotized his work experience by writing a book on laying floors, how Scollon and his wife then read and talked through the book (text and images) as they first decided whether to lay a floor, then ordered the wood, and finally with another family member laid it, all the while engaging in multiple resemiotizations of the book’s text and pictures as well as multiple instances of resemiotizing earlier talk and material action. Scollon and Scollon (2004) also highlight the way that tracing trajectories of people, signs, objects, and actions involves attention to how scales of time interact (Lemke, 2000). Finally, the co-production of people and practice is central to mediated discourse analysis as seen in Scollon’s (2001) analyses of the ontogenesis of handing – that is, the ways people learn how objects are handed and received, with what kinds of semiotic gestures and sometimes accompanying talk or textual exchange. The ontogenesis of handing, its repeated but varied practices (a parent handing objects to a baby, a child sharing toys with a sibling at home, a professor buying coffee at Starbucks, a political group handing out literature on Hong Kong streets), calls attention to the ways people learn very specific practices (including the identities, affects, motives, and means associated with them) that get redeployed across sites
of engagement and fused into broader practices. Scollon’s close analysis of the ontogenesis of handing offers a striking meditation on how one family of re-relations is constituted in practice, on how different episodes of handing are sociogenetically linked. Work on mediated discourse analysis has attended admirably to discourse as action, to chains of discourse across modes and media, and to sociogenetic dimensions of communicative practice.

In seeing social interaction as the locus for human development, Voloshinov’s and Bakhtin’s theories align well with the rich, generative work in psychology of their contemporary, Vygotsky (1987). Linking these two lines of scholarship decades later, Wertsch (1991) argued that the question ‘Who’s talking?’ is central to exploring and understanding links between semiotic mediation and learning – that is, to the historical co-production of people and society as others’ utterances and signs are appropriated into sociocognitive systems (memory, attention, self-regulation), personalized, (re)externalized, and hence (re)woven into the fabric of social voices, practices, and identities. We would argue, however, that a more comprehensive view of that historical co-production of people and society is offered by the question ‘Who’s acting and making?’ – which points to fully embodied semiotics in the world, not only talk.

Theories of mediated and distributed activity (see Cole & Engeström, 1993; del Rio & Alvarez, 1995; Hutchins, 1995; Wertsch, 1991, 1998) highlight the critical place of material-semiotic artifacts such as hammers, languages, computers, narratives, and interpretable texts, in the (re)production of society and the development of individuals. As Wertsch (1991) notes, mediated activity offers a unit of analysis that integrates the social and psychological, the situated and the historical. Mediation also entails distribution, the ways use of an artifact here-and-now by particular participants draws in the activity of other participants at other times and places, producing a kind of chronotopic lamination – a fusion (fleeting or stabilized) of multiple times, places, and people (see Prior, 1998; Prior & Shipka, 2003). Analyzing the practices of ‘taking a
The computation of the present fix relies on the most recent setting of the hoey, which was done a few seconds ago. The present computation also involves the projection of the dead-reckoning position, a piece of work that was done just a few tens of seconds ago; on the tide graphs that were constructed a few hours ago; on the changes to the chart that were plotted a few days ago; on the projected track and the turning bearings, which were laid down when this chart was ‘dressed’ a few weeks ago; on the placement of the symbols on this chart, which was done upon publication of the new chart issue a few years ago; on the nature of the plotting tools, which were designed a few decades ago; on the mathematics of the projection of the chart, which was worked out a few centuries ago; and on the organization of the sexagesimal number system, which was developed a few millennia ago. (pp. 167-68).

Heterochronicity and heterogeneity flow from such layered, embedded mediation. Hutchins (1995) describes distributed cognition as the coordinated, transformative ‘propagation of representational state across representational media’ (p. 118). He notes how each medium in these distributed processes, including human brains and bodies, has particular properties that are adaptively recruited and reconstituted in particular functional systems – fleeting or stabilized ensembles of people, artifacts, practices and environments that are being coordinated around some end(s).

Discourse practice needs to be understood as historically unfolding relationships among externalized, interiorized, and embedded forms of mediation. Vygotsky (1997b) noted that ‘every function in the cultural development of the child appears on the stage twice’ (p. 106), first on the social plane, between people, and then on the psychological plane, within the person. In his
account of sociogenesis, Vygotsky (1987) presented the dynamic transformations – from thought to language and language to thought – that drive and define psychological development as fundamentally an issue of semiotic remediation. Discussing the different semiotic properties of language and thought, he wrote:

> Thought does not consist of individual words like speech. I may want to express the thought that I saw a barefoot boy in a blue shirt running down the street today. I do not, however, see separately the boy, the shirt, the fact that the shirt was blue, the fact that the boy ran, the fact that the boy was without shoes. I see all this together in a unified act of thought. In speech, however, the thought is partitioned into separate words…. What is contained simultaneously in thought unfolds sequentially in speech. Thought can be compared to a hovering cloud which gushes a shower of words. (p. 281)

Beyond the representational shift from holistic and multi-sensory interior semiotics to linear-verbal externalized semiotics, Vygotsky was also concerned with *sense*, with the affective and motivational dimensions of consciousness, with what Voloshinov (1973) identified as socio-ideological tone and evaluative orientation: ‘Any apprehension, after all, must have inner speech, inner intonation, and the rudiments of inner style: one can apprehend one’s hunger apologetically, irritably, angrily, indignantly, etc.’ (p. 87). Consider, for example, the difference it makes if the barefoot boy is celebrating with abandon a beautiful summer day, evoking perhaps a complex mix of joy and nostalgia, or is a starving and ragged child running from soldiers and explosions, producing quite different emotions and motives for action. These semiotic transformations between thought and externalized signs, particularly when linked to the place of sense in consciousness, point again to a dialogic semiotics.

From a sociogenetic perspective, the *re-* dimensions of discourse practices make them a centripetal force in the dialogic production of the recognizable, not only recognizable forms of
communication, but also the recognizable character of persons, the recognizable shape of social formations. The challenge here is how to account for re-, how to understand ‘repeated’ not as a relation between identical events or entities, but as an effect of complex blends of indexicality, iconicity, and tropic projection. Only with a firmer account of re- and co- relations will the semiotic re-circulation of discourse practices across embodied action, material artifacts, and inner experience present for us a fully integrated framework for understanding individual and social development, the constitution of sociocultural orders, and the everyday working out of situated, mediated activity.

Methodological Implications

Semiotic remediation as discourse practice draws together diverse phenomena around a basic set of semiotic operations and is attuned to the situated and sociogenetic dimensions of everyday activity and discourse. It aims to reach from the fleeting worlds of inner semiosis to long, historical chains of material activity in the world. In certain respects, the methodological tools for analysis of semiotic remediation have been developed in approaches that examine discourse, visual, and other sign systems and that study human activity.1 Exploring semiotic remediation as discourse practice calls for the same methodological tool kit that these related approaches use: basically a combination of ethnographic methods of data collection (observation, interview, recording of activity, collection of texts and artifacts) with interpretive forms of analysis (triangulation; close reading; grounded theorizing; data reduction by coding; data manipulations by re-arrangement, isolation, and re-contextualization; reflexivity). Without underestimating the challenges to employing such tools (and the chapters in this volume represent different scholars’ solutions to some of these challenges), we see the central methodological issue much in the terms Vygotsky articulated it, as a question of theory-method linkages.
Vygotsky (1997a) identified the crisis in the psychological work of his era as essentially a problem of theoretical motivation, selection, and framing. He argued that research needed to be guided by a strong, deep theoretical framework that would be tightly aligned to congruent objects and methods of inquiry, and that would be guided by social needs as well as by a desire for growth in knowledge. Looking at psychology five decades later, Bruner (1990) highlighted the continuing ways fragmentation and narrow specialization were producing studies that were ‘less and less exportable,’ sealed ‘within their own rhetoric and within their own parish of authorities’ (p. ix). Likewise, a virtuoso technical analysis of certain dimensions of a situated interaction that is not guided by a coherent, broader framework for understanding human practices and their re-emergence over time and place will end up being just a tile in a mosaic that has no pattern guiding the placement of its pieces. As a number of scholars (see Cicourel, 1981, 1992; Goffman, 1981; Silverstein, 2003, 2005) have noted, the particular methodological principles of the school of conversation analysis (as in Schegeloff, 1996), which have been designed to attend to sequential adjacency pairs in face-to-face talk as though they were autonomous social and linguistic worlds, represent a prime example of an approach that in principle attends to whatever tile a researcher happens to hit upon and ignores any other dimension, contextualization, or consequence of situated activity. Without an overarching and integrated theory that links semiotics, individual action and development, and sociocultural phenomena, studies of social practice and situated discourse risk producing a fairly random mosaic; even if the painted tiles are beautiful, they tend to not add up to much or to be well designed for creating a more coherent picture.

In our own reading of varied literatures, another kind of methodological problem is also visible – that of theories that outstrip their implementation in research designs, often with little or no apparent recognition of the disconnect. This phenomenon may emerge because social and
practical motivations end up defining objects of inquiry in ways that borrow heavily from everyday categories and that fail to interrogate those categories. It may also emerge because of a reliance on familiar methods or a conventional set of disciplinary problems. A method and problem set may define rigor in narrow terms or simply offer such a sophisticated, complex, and seemingly comprehensive array of analytic concepts and moves that it becomes easy to ignore whatever falls outside their bright spotlight. The lack of attention to literate practices and artifacts in so many otherwise sophisticated, situated studies is one example of this kind of disconnect between theory and methodology. For example, Mertz (2007) offers a remarkably rich ethnographic account of legal enculturation centered in law school classrooms. She attends to how legal cases are recontextualized in classroom talk-in-interaction, how such recontextualizations index the reading of legal cases, and how this enculturation produces a very specialized ideology of certain genres of text-artifacts. Yet the role of writing-as-activity, of student writing in particular, is almost invisible. Mertz’s discussion of methodology focuses on the basic toolkit for linguistic anthropology (means of collecting and analyzing talk, of engaging in observation, and of conducting interviews); however, collection of texts, especially student texts (whether notes written at home or examination questions), much less investigation of writing processes, is not on the table. We cite this example because it is so striking to one of us (Prior) whose work has explored disciplinary socialization in graduate education, but also because Mertz’s theoretical sophistication, the rigor of the methods she employs, and the depth of her ethnographic engagements (as insider and researcher) in legal discourse practices make the absence of attention to writing in effect an example of the steep challenges we are noting here. Recognition of the pervasive heterogeneity of semiotics, the tracing of chronotopic networks spread across space and time, close attention to how co- and re- relations are forged, the integration of semiotic and material trajectories in activity, all work against the dominant grain of
studies that have defined sites of inquiry by their named placement on existing sociocultural maps and have identified objects of inquiry by the taken-for-grantedness of their forms. The alignment of theory and method is a constant challenge for us all, one that calls for reflexive interrogation of our own designs.

In that sense, semiotic remediation as discourse practice has implications for the motivation of inquiry, for selection of sites and methods, and for the deployment of methods and means of analysis. It argues that studies should attend to the semiotics that are in (inter)action, not to some pre-determined set. Responding to a set of studies of narrative in a special issue of *Text and Talk*, Haviland (2008) notes the lack of fuller semiotics (and a certain looseness with form itself) as a central limitation of the studies:

First, a complaint: utterances are not only multifunctional, but also multimodal. In these for the most audio-only narrative studies, with data usually in English or presented in free English gloss, one often feels that formal interactive elements may be rendered invisible by design. Ochs (1979) pointed out decades ago that when our data are reduced to the transcripts we use, we must be especially careful how we choose to transcribe. Is there only one possible standard of transcriptional detail? Does the original language matter? Can we somehow read the Italian through an English gloss? Or interpret significant visible action through a desultory textual paraphrase? (p. 443)

If a particular semiotic is going to be a focus (and we recognize the potential value of such focused attention), then it should be clear why and how the semiotic range has been so narrowed. In other words, the narrowing should be reflexive, relatively explicit (recognizing there are limits even to delineating limits), and balanced by appropriate qualification of findings.

To explore semiotic remediation, researchers should recognize the simultaneous, layered deployment of multiple semiotics (talk, gesture, artifact use and production, interaction with
environmental structure): people are never just talking, just reading, just writing. It also means that researchers should look at semiotic trajectories and chains across time and place, recognizing both the need to understand semiotics as dispersed and mediated and the value of tracing out mediations ANT-like, rhizomatically, across situated functional systems. Semiotic remediation as practice also foregrounds that the twinned processes of learning and social formation are ubiquitous dimensions of practice, a point nicely articulated by Lave and Wenger (1991).

Discussing the question of linguistic relativity through the lens of analyzing deictics in Mayan, Hanks (1993) observed: ‘Rather than asking what speakers of a given language can think because of the categories of their language, the real question is what they routinely do think, because of the contours of their practices’ (p. 266). Heterogeneity, agency and emergence/learning mean that action is never simply the outcome of some sociocultural algorithm, that local here-and-now sites are never autonomous domains, and that whatever phenomena are seen in a particular situated stretch of activity should not be translated into a rule for action/discourse in that situation.

Finally, the framework of semiotic remediation as discourse practice needs to be applied reflexively to the work of theory and research. It should inform how we understand our own construal of problems, the semiotic practices of our research inquiry, the way that research is represented in reports, and the way research is linked to the identities and social contextualizations of all participants (ourselves included). In all these senses, our hope is that exploring semiotic remediation as a discourse practice will pose problem spaces for sociocultural researchers that motivate strong but expansive theoretical frameworks for research, frameworks that are closely and reflexively aligned to units of analysis and methods of inquiry. Thus, we hope, our growing sense of the sheer complexity of human-activity-in-the-world may be matched by a corresponding sophistication in the design, analysis, and presentation of our observations.
The chapters of this collection take up semiotic remediation across a wide range of settings and through particular methodological lenses well fitted to those settings. Through close attention to the discourse practices of university students, Kevin Roozen (Chapter 2) and Jody Shipka (Chapter 3) challenge institutionally-bounded notions of school and school learning as well as narrow linguistic notions of writing. Roozen offers a fine-grained analysis of trajectories of practice and dialogic remediation, following an undergraduate student as he links school and nonschool literate activities: studying mathematics, producing and performing sketch comedy, writing content for a role-playing game, and teaching math. Shipka analyzes the mediated, distributed, embodied, and affective dimensions of composing processes as students in a college composition course undertake a task that requires them to remediate print-based texts, a task that ultimately leads them to design, orchestrate, and represent a two-day, multi-site rhetorical event with original music, handwritten texts, images, video, a live ‘coffee house’ performance, and a learning tour. Focusing on narrative as forms of situated practice, Mary Juzwik (Chapter 4) and Julie Hengst (Chapter 5) examine how participation in narrative tellings shapes the ongoing development of persons, their social identities, and their social relations. Juzwik analyzes recontextualization and entextualization in a narrative spell (a chain of linked narratives) in a seventh-grade English classroom, probing in particular constructions of moral stance in relation to English literature and ethnicity. Examining conversational narratives in clinical and everyday interactions of adults with aphasia and their routine communication partners, Hengst analyzes embodied tellings of narratives, particularly the alignment of multiple semiotics in specific narrative performances and reformulations. Rick Iedema (Chapter 6) takes up resemiotization in a wider circumference as he examines the trajectory of a national policy reform (open disclosure of adverse medical events) in Australia, noting how new technologies have altered the pace of, and
patterns of participation in, policy-making and analyzing the way these processes sought to weave together commitments among stakeholder groups as discursively tentative representational modalities shifted towards highly authoritative modalities of meaning making. Barry Saferstein and Srikant Sarangi (Chapter 7) and Jeffrey Grabill and Stuart Blythe (Chapter 8) explore the ways relative newcomers encounter and grapple with scientific discourses in two quite different cases. Saferstein and Sarangi consider how interactionally-mediated multimodal representations contribute to understandings of genetics; they analyze the multimodal affordances of genetics displays in a public educational exhibit and video recordings of high school students using computer simulations and heuristic games in a biology classroom. Grabill and Blythe trace semiotic remediation as an urban community group works to do citizen science – assembling information and texts from diverse sources and across multiple technical discourses in order to craft rhetorically effective responses to address the environmental and health risks of government plans for dredging a local shipping channel. Paul Prior (Chapter 9) examines new media design production in the work of a university group (professors and graduate students) revising an online art object, focusing on situated semiotic remediations that blend talk, drawing, listing, data entry and programming, and gesturing (over screen and paper). Judith Irvine’s afterword reflects on how the notion of semiotic remediation is situated in conversations about discourse, semiotics, and culture, and she notes several issues for research on semiotic remediation, especially questions of how to bound and motivate studies and how to link local sites to larger and longer-term regimes of value.

The varied contexts and frameworks represented in these chapters attest to the interdisciplinary character of this work, but also to the challenges of interdisciplinarity as diverse literatures, rhetorical traditions, objects of inquiry, and sociopolitical projects are brought together. This volume begins to suggest how researchers in different disciplines can examine
Conclusion

In many ways, this edited collection complements and extends the lines of work we have cited (quite thinly, we’re afraid) throughout this introduction. Taking up a broad range of theories, highlighting inscriptional practices as well as multimodal texts, attending to gestures as well as computer technologies, and investigating diverse settings, this volume proposes a view of semiotic remediation that we believe can make important contributions to increasingly rich and deep lines of scholarship. One of the key extensions is the attention given here to the situated production of semiotic artifacts, to analyzing, for example, writing-as-activity rather than only as object-in-the-environment. Another is the principled extension of dialogics into the full range of semiotics, which should, for example, shift the basic question for gesture studies from how gestures mimic linguistic systems to how they function dialogically, just as it should shift attention in semiotics from the formal properties of different semiotics to the blending of semiotics-in-action. Going forward from this volume, we believe that the conversations among the different lines of theory and research represented here need to intensify to produce collective engagement with a broad semiotic theory that examines remediation as discourse practice. For example, further work within this framework might rearticulate questions of how brain and body, environment and action, are linked; of how activity flows chronotopically across particular sociocultural sites; of how a *re* is realized and with what consequence. Because theories are conditioned by and adapted to the examples they have been developed around, we hope that the theoretical concepts and tools that will be called out and honed by this new set of problems – these new foci of attention – will be richer for having to address such semiotic and social...
heterogeneity. The fully embodied, mindful character of human practice is only beginning to become visible; consistent focused inquiry on practice in this sense will continue to push the evolution and refinement of theoretical and methodological toolkits. The promise of such approaches is a growing understanding of sociocultural practices that is finer-grained, better articulated to histories, and better aligned to the complex, contradictory character of human worlds. We believe such knowledge can help illuminate and address the steep challenges we face as a species.

Notes