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GETTING FROM A TO B: ON THE QUESTION OF KNOWLEDGE TRANSFER

Stephen Gourlay
Kingston Business School
Kingston University
Kingston upon Thames
KT2 7LB, UK
sngourlay@kingston.ac.uk

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Abstract

Knowledge management writers implicitly assume that texts are containers of knowledge, and that knowledge transfer takes place when someone reads a text. This paper outlines Rosenblatt's transactional theory of reading, in the context of a discussion of Dewey's concept of transaction. This approach, supported by other writers, suggests that reading is most fruitfully viewed as an event through which meaning is constructed by and for a reader. This conclusion thus challenges simplistic notions of knowledge 'transfer' through reading. Some implications of the transactional perspective on reading are outlined.

Introduction: issues and aims

The topic of 'knowledge transfer' is important in a number of fields. It is a particularly critical one for 'knowledge management' since knowledge sharing or transfer between individuals and organizations is central to knowledge management. Nonaka and Takeuchi (1995) proposed that knowledge is created as it is converted from tacit to explicit and back to tacit forms. Tacit knowledge is personal and private, and derived from doing something. Explicit knowledge is knowledge in the form of documents and other publicly communicable forms.

According to Nonaka and Takeuchi's model, tacit knowledge can be exchanged with others by doing things together, but also it must be 'externalized' or converted into explicit knowledge to be communicated to other people. Explicit knowledge can be stored in, for example, texts, which can be used by others to internalize that knowledge, thus re-creating the original tacit knowledge (see Nonaka & Takeuchi 1995: 61-70). Thus they claim that people can "feel" the "experience" that is recorded in a story by reading or listening to it, thereby changing their tacit mental models. In this way, knowledge can be shared by (or, what amounts to the same thing, transmitted between) members of an organization (Nonaka & Takeuchi 1995:69-70). Myers (1996:1-2) and others (Teece 2001:130) also argue that tacit knowledge must be converted into explicit knowledge if companies are to capitalize on it. This view implies that knowledge can readily be transferred between individuals once it is in explicit form.

The issue of transfer of knowledge between organizations has also attracted much attention, although there is a dearth of theoretical models and empirical research in this area (Wathne et. al.1996:55); Choi & Lee (1997:36). Teece (2001:126) suggests the "nature" of knowledge has prevented the development of commodity-like markets thus making knowledge transfer difficult. Hamel (1991, cited in Wathne et.al. 1996:55), however, does refer to knowledge as being 'traded' between organizations. Teece (2001:126-30) refers to codified, tacit, organizational and, personal knowledge, and to knowledge embodied or embedded in "technology". Teece's organizational knowledge - knowledge embedded in routines and procedures - appears similar to tacit knowledge as regards its transfer. Wathne et.al., (1996) and Choi and Lee (1997) refer primarily to tacit knowledge transfer issues.

These authors regard explicit or codified knowledge as relatively easy to transfer (Teece 2001: 130; Choi & Lee 1997:37-8). Choi and Lee appear to equate explicit

knowledge with information (1997:37) implying they view explicit knowledge transfer simply as the transfer (and management) of documents in various forms. Teece appears to share their view, though he cautions against identifying knowledge management with information management (Teece 2001: 130).

Tacit knowledge, on the other hand, is more difficult to transfer. Teece (2001: 128), Choi and Lee (1997:43) and Wathne et.al. (1996) all suggest that tacit knowledge can only be transferred by transferring people from one situation to another. Wathne et. al. have developed a model focusing on task-related knowledge on this basis of which they propose that organizations can share or transfer knowledge through the co-operative development of a social stock of knowledge. Companies can work together on projects, and individuals can be moved on and off the joint project team, thus transferring that knowledge to the rest of their respective organizations (1996:58-9). They thus concur with Teece's remarks that organizational knowledge can only be transferred through "the transfer of clusters of individuals with established patterns of working together." (2001:126), although of course the individuals moved back into their organizations will no longer be part of the team, to state an obvious but apparently critical point relating to tacit / organizational knowledge transfer.

None of these authors venture to suggest how knowledge is actually transferred between people thus implying it is more or less an automatic consequence of joint participation in activities. Nevertheless, as Wathne et.al, note, individuals may not share and may even hide knowledge from others (1996:59). This implies that knowledge sharing depends on behaviour beyond that of working together. In line with this way of thinking they suggest knowledge transfer/sharing will be influenced by openness, channels of interaction, trust, and prior experience (60-66) which become the key factors in their model. Similarly Teece who notes that internal transfer problems include finding the knowledgeable person, "absorptive capacity" and the roles of "Gatekeepers", 'translators', 'internal knowledge brokers' and other specialists in technology transfer [sic] ..." (2001:128).

There thus appears to be agreement that 'knowledge' is somehow 'embedded' in people, or in relations between people (i.e. in groups with their associated routines etc.), and perhaps in technology (Teece 2001: 126-30). Knowledge transfer is thus effected when people, individually or in groups, are moved around, or when technology (i.e. products) are exchanged. Implicitly therefore knowledge is contained in these organic and inorganic forms - Teece writes of knowledge being "trapped inside the minds of key employees" (2001:128). How the knowledge is 'trapped' by, put into or got out from these 'containers' is apparently not important. Yet, to pursue the metaphor, unless the transmitters or recipients know and agree on how such 'packaging' is accomplished, it is difficult to see how successful knowledge transfer could ever take place. The packing/unpacking process is therefore crucial, but unexplored in this literature.

All these authors merely *locate* the problem of knowledge transfer, they do not specify it. There is general agreement that working together is important for tacit knowledge transfer, and that tacit/organizational knowledge can only be 'transferred' by or more accurately 'within' people. Once knowledge has been extracted or 'released' from people and thus made explicit the absence of discussion of further transfer processes implies a view that transfer has been effected. Nonaka and Takeuchi's model at least recognizes the stage or process of 'internalization' as following the externalization of

tacit knowledge into documents and similar forms. They, however, do not dwell on what internalization might involve, and how it can succeed. Knowledge transfer thus remains a mystery.

One point we should bear in mind in this discussion is the problem that faces us all, knowledge management writers, and ourselves: we are all using the English language to talk about knowledge and knowing processes. The phrase ‘knowledge transfer’ is a metaphor naming a process the meaning of which is largely taken to be self-evident. Metaphors are of course indispensable (Lakoff & Johnson 1980) but they can function as barriers to identifying problems or expressing new ideas. Reddy (1979) showed that stories about communication told by people using English are largely determined by semantic structures of the language. He listed and analysed a large number of ways in which we speak about communicating ideas that centre on the notion of ‘transferring’ some kind of container of meaning, and in particular, that language transfers thought and feeling. The logic of this framework, which he called “the *conduit* metaphor” leads us to conclude that words must have insides (where we place the thoughts) and therefore outsides (Reddy 1979: 285-8). Not that we really believe or think this, its just that the ways in which we talk about communicating, or knowledge transfer, entail making the assumption that some kind of container is involved, whether it is words, or people. Wells has remarked that the tendency to treat documents as containers of knowledge is part of a general tendency at least in English to treat “semiotic objects” as vehicles for transporting information between minds (Wells 1999: 94).

Much knowledge management writing about knowledge transfer reflects the power of the conduit metaphor. The nature of the problem that concerns me is, however, quite different, and not expressible in this way. Lotman (1990:11-13) gives a very succinct statement of this problem. He suggested that the everyday recipient of a message in a text form treats the text itself as a container, as packaging from which something of interest can be extracted. This implies an information-processing model whereby an author encodes their thoughts into a text, and the recipient/reader decodes the text to recover the thought. Thus the purpose of this system is to provide an efficient transfer mechanism.

From the perspective of providing an efficient transfer mechanism, however, natural linguistic structures are “rather badly constructed” since:

For a fairly complex message to be received with absolute identity, conditions are required which in naturally occurring situations are practically unobtainable: addressee and addresser have to have wholly identical codes, i.e. to be in fact *smiotically* speaking a bifurcation of one and the same personality ... (Lotman 1990:13)

It is not enough that addresser/addressee, speaker/listener, writer/reader use the same natural language (English, French and so on). There must also be “a common linguistic experience”, common memory, and common understanding of norms, references and pragmatics. Given the inevitably individual way in which members of a collective learn their culture, coincidence of codes is only relative, from which it follows “that the identity of the transmitted and received texts is relative.” (Lotman 1990:13). Lotman does not appear to discuss the conditions under which codes might become more, or less, alike among members of a culture. This suggests that the

problem of 'knowledge transfer' is more acute than that of establishing modes of co-operation that reduce perceived barriers to sharing (Wathne et al. 1996). The problem is that of how one person comes to acquire the functionally equivalent thoughts, ideas or schemas of another.

It is helpful to establish a working definition of 'knowledge transfer' along these lines to provide an orientation to the problem, and guidance for selecting relevant materials and arguments. As we have seen, references to 'knowledge transfer' in the field of knowledge management imply it is obvious what is meant. Since, however, 'knowledge' is ill-defined in knowledge management literature, it follows that knowledge transfer must also be ill-defined. Further, we find authors distinguishing tacit from explicit knowledge saying that the former cannot be transferred without transferring the people in whom it is 'contained', while the latter is easy to transfer. If we have two forms of knowledge that differ radically in our ability to 'transfer' them, it does not seem to make much sense to talk of 'knowledge transfer' in general.

We could begin by defining 'knowledge' and then considering what we might mean by its 'transfer'. Here, however, I intend to approach this issue by asking what evidence would we accept as indicating that a process of 'knowledge transfer' had taken place? Taking two people, in a situation where one intends to transfer knowledge to the other, who in turn desires to receive it, we are unlikely to accept the claims of either party to have transferred or received 'knowledge'. Rather, following Ryle (1949/1963: Chap.V; & pp. 215-8) we would accept as evidence of the transfer of knowledge that someone who had been unable to do something before the 'transfer' could now do it, and where all parties (including observers) agreed that the transfer process had involved 'knowledge' relevant to the activity.

This links 'knowledge transfer' with learning - i.e. knowledge transfer is in one sense, if not entirely, concerned with learning or is indeed a synonym for 'learning'. Since there are good grounds for holding that we can do things when we have developed the appropriate scheme, schema or schemata (Piaget 1971a; see Eckblad 1981:17-18 for discussion of the various terms), this implies that 'knowledge transfer' involves the transformation or development of someone's schemas, under the impact of the transfer process. To return to the theme of reading, this means that for knowledge transfer to occur, the reader's schemas must be transformed through the processes of assimilation and accommodation described by Piaget (Goodman 1985:814) to become functionally equivalent to those of the writer.

According to Piaget, schemas are always built up on the basis of existing schemas, (Piaget 1971a: 8-9, 253-4; see also 1971b:62-3, and Eckblad 1981: 23-5). We can therefore regard 'knowledge transfer' as some kind of process whereby a person's existing schemas (a psychological structure) are transformed into schemas functionally equivalent to those of the person 'transferring' the knowledge. I have introduced the phrase 'functionally equivalent' because we can only judge whether transfer has occurred through examining what someone can do after the transfer process - we cannot directly inspect their schemas, and it is always possible that the 'same' actions could be performed on the basis of different schemas. Since on the whole our primary concern is that, following the transfer, the person can do something they were previously unable to do, we are interested in *functional equivalence*, not in a faithful copy.

The focus of this paper is on the 'transfer' of 'knowledge' from one person to another through 'reading' and using 'texts'. Whether it makes sense to talk of 'knowledge transfer' between collectivities (i.e. firms, organizations) and if so, how that might occur, will not be addressed explicitly here. As we shall see, 'reading' is far from being the simple process that knowledge management and other literature takes it for.

Reading theories and models

There are a large number of models and theories of the reading process. Singer and Ruddell (1985) for example selected six models of the reading process for inclusion in their handbook. These were: developmental, information processing, interactive, inferential, transactional-psycholinguistic, and affective models (Singer & Ruddell 1985:620). This is not the place or time to review those and other models. Instead I propose to focus entirely on one model which was not fully represented in that handbook, the transactional reading model of Louise Rosenblatt.

There are several reasons for this choice. First, according to Booth (1995), Rosenblatt has consistently emphasised reading as a relationship between readers and texts against the swings of other approaches that at one time or another emphasised reader *or* text. As she put it, her theory falls between the poles of reading as decoding, and approaches that privilege the reader above all, both of which she characterised as dualist (Rosenblatt 1998: 918). This links with a second, reason, Rosenblatt's anti-dualism (Rosenblatt 1994: 176ff) which fits well with current thinking rejecting this legacy. Third, Rosenblatt insisted on what Booth described as the "cultural embeddedness of every ... reading" (Booth 1995:xii), a view that fits well with current emphases on the 'situatedness' of human activities. Last, but not least, her 'transactional' approach links her theory explicitly with a still emerging approach to understanding human behaviour (of which reading is an example) that emphasises the inter-connectedness of human activity.

Rosenblatt described her approach to understanding reading as a 'transactional theory'. She began developing her approach in the late 1930s, with the publication of *Literature as exploration* (Rosenblatt 1938/1995), but her ideas were not taken up more widely until the 1980s (Rosenblatt 1994:176-7; 1985; 1993). The following quotation provides an introduction to the transactional perspective contrasting it with the more widespread information-processing or 'interactional' one:

Instead of ... the dualistic, mechanistic, linear, interactional view, in which the text, ... and the personality of the reader ... can be separately analyzed, with the impact of one on the other studied in a vacuum, we need to see the reading act as an event involving a particular individual and a particular text, happening at a particular time, under particular circumstances, in a particular social and cultural setting, and as part of the ongoing life of the individual and the group. We can still distinguish the elements .. not as separate entities, but as aspects of phases of a dynamic process, in which all elements take on their character as part of the organically-interrelated situation. (Rosenblatt 1985:100)

While Rosenblatt began with concern for 'literature' and taught English for much of her life, her approach is applicable to any kind of reading of texts (at least in the sense of the printed word and its analogues), not just to 'literature' (see Rosenblatt 1998 in particular). Indeed, she rejected the idea that there are 'literary texts' here and

'scientific texts' there, preferring to stress the stance of the reader in treating the text in one or another way.

Before looking at Rosenblatt's ideas it is helpful to look at the concept of 'transaction'. This is because of the difficulties that arise with conveying the meaning of this approach as distinct from those we are (still) more familiar with. As Rosenblatt herself had occasion to note unfamiliarity 'transaction' led to a tendency to assimilate it with more familiar modes of thinking such that its import is lost (Rosenblatt 1985).

Transaction

Rosenblatt took the term 'transaction' from Dewey and Bentley's *Knowing and the known*, (Dewey & Bentley 1949; Rosenblatt 1994:16-18). The idea can be traced in Dewey's writings to 1896 when he argued that stimulus and response should be seen as mutually determining, not as sequential (Dewey 1896). The idea formed a recurrent theme throughout his writing (Pronko & Herman 1982) and Ratner (1939:173) argued that this concept was the most important of Dewey's contributions to philosophy.

Dewey first used the word 'transaction' itself in the sense it later acquired when in 1930 he wrote:

No organism is so isolated that it can be understood apart from the environment in which it lives. ... [the] interaction taking place between ... organism, on one side, and environment, on the other ... is the primary fact, and it constitutes a *trans-action*. Only by analysis and selective abstraction can we differentiate ... organism and .. environment. (Dewey 1930/1984:220).

It was not until the 1940s, however, that he settled on the word 'transaction' instead of 'interaction', and he often used the latter term in the same sense. As Rosenblatt pointed out, recent developments in ecology emphasising organism-environment interdependence have made us familiar with the notion (Rosenblatt 1985: 98). The implications of the transactional approach for behavioural sciences, however, as well as explicit methods of research, remain undeveloped (Pronko & Herman 1982; Ray & Delprato 1989).

The distinctiveness of 'transaction' can most readily be appreciated in comparison with other methodological stances distinguished by Dewey and Bentley. They argued that in the course of human history three methodological stages or stances can be discerned, which they named self-action, interaction, and transaction (Dewey & Bentley 1949: 108), a view, using different words, shared by others (see Ray & Delprato 1989; Piaget 1971b:45-6; Elias 1974).

Self-action characterized all research and inquiry up to the time of Galileo. Under this perspective, things are viewed as acting under intrinsic powers: gods, essences, mind, soul, are different names for such powers (Dewey & Bentley 1949: 68, 107, 110). As a methodology, self-actional approaches tend to name a problem, or sometimes to assert that 'the environment' is the source of change (Dewey & Bentley 1949: 130-32). To be told that someone does something because they are motivated to do merely names the 'force' ('motivation') without telling us more than we already knew. The

treatment of behaviour in terms of intrinsic 'forces' could still be found in psychology texts, for example (Pronko & Herman 1982: 231-2; see also Handy and Harwood 1973:6).

Galileo's experiments and observations undermined self-actional approaches in physics, and his viewpoint was consolidated by Newton's "system of interaction" (Dewey & Bentley 1949: 68). Newton's system of classical mechanics stressed finding interactions between forces viewing "thing balanced against thing in causal interconnection" (Dewey & Bentley 1949:108) resulting in a view of the world as process between ultimately simple unalterable particles (Dewey & Bentley 1949: 111). Methodologically, interaction takes things as defined independently of the inquiry under way, and focuses attention on what happens between those pre-defined things (Dewey & Bentley 1949: 122-3). Thus organism, and environment, for example, are taken as given and inquiry focuses on interactions, cause and effect relations and so on. Elias characterized this phase of scientific endeavour as searching for lawlike connections and representations and concerned with the "discovery of timeless laws and of the use of unchanging universals" (Elias 1974:23-7). The possibility that things might be affected significantly in the course of the interaction being studied, or through the process of study itself, or that the observer's role might be important, was excluded.

Dewey and Bentley illustrated the contrast between interaction and transaction using the example of a game of billiards:

If we confine ourselves to the problem of the balls on the billiard table, they can be profitably presented and studied interactionally. But a cultural account of the game in its full spread of social growth and human adaptations is already transactional. (Dewey & Bentley 1949: 133).

They also argued that the prefix 'inter' is ambiguous because it can indicate either something 'in between', or a mutual connection (Dewey & Bentley 1949:295-6). In effect, therefore, it should be confined to situations where 'in between' can legitimately be focused on to the exclusion of the wider relationship of which any 'in between' is naturally part of. They proposed that the word 'transaction' should be used to situations where "the mutual and reciprocal" are intended in order to avoid confusion (Dewey & Bentley 1949: 296).

Finally, transaction represents the contemporary methodological approach "without attribution of the aspect and phases of action to independent self-actors, or to independently inter-acting elements or relations ..." (Dewey & Bentley 1949: 121). The transactional procedure involves seeing together "extensionally and durationally, much that is talked about conventionally as if it were composed of irreconcilable separates." (Dewey & Bentley 1949: 69); observations must cover temporal and spatial dimensions of whatever is being investigated "so that "thing" is in action, and "action" is observable as thing" (Dewey & Bentley 1949: 123). Pre-existing descriptions are taken as tentative, subject to revision as inquiry proceeds, since specification of any element of a subject-matter can only adequately proceed in conjunction with specification of other elements (Dewey & Bentley 1949: 122).

They did not claim that this procedure is more real or valid than any other (Dewey & Bentley 1949: 69) but simply that it was an "issue of securing freedom for wider

envisonment” (Dewey & Bentley 1949: 128) than obtained under interactional procedures. They also argued that the transactional approach which was evident in physics from the late nineteenth century was consolidated by Einstein’s work which re-integrated time and space. It was also evident in physiology/biology with the ecological approach (Dewey & Bentley 1949: 106-7, 111-2, 126-8). As regards behaviour - “all of the adjustmental activities of organism-environment” (Dewey & Bentley 1949: 149) - a transactional approach is essential since “the subjectmatter of behavioral inquiries involves organism and environmental objects jointly at every instance of their occurrence, and in every portion of space they occupy.” (Dewey & Bentley 1949: 130). This view corresponds with Elias’ characterization scientific activity shifting from being primarily concerned to discover universal laws to a concern with models of structure, explicitly involving spatial and temporal dimensions (Elias 1974:26-8). Piaget (1971b) also saw the latest phase of scientific activity as being concerned with explicating structures.

We have already seen one example of the potential consequences of adopting a transactional procedure in the case of studying billiards in terms either of the processes on the table, or placing the game in a wider context. A commercial transaction is another obvious example since there is only buyer, seller, and transaction (in the commercial sense) in so far as there is a relationship between the parties, and both parties and goods undergo change in time and/or space (Dewey & Bentley 1949: 270). Similarly a transactional account of hunting would allow us cover the whole ground whereby hunting emerges as a human activity or behaviour, and 'hunter', 'hunted' and related purposes become defined (Dewey & Bentley 1949: 133).

Dewey and Bentley’s discussion of transaction was carried on largely in relation to their concern with epistemology, and they did not develop the methodological approach beyond the kinds of broad generalization outlined above. This was hardly surprising since neither was a practising social scientist, and both were working in the last decades of their lives. Their ideas seem largely to have been neglected from the methodological perspective despite Handy and Harwood's attempts (Handy & Harwood 1973) with the exception Pronko and Herman (1982) who sought to extend it by drawing on the ‘interbehavioural psychology’ of Kantor, and by Ray and Delprato (1989) who linked all these ideas to systems methodology.

Another way of understanding what the concept of 'transaction' entails is to see how the notion of stimulus-response changed. We are probably all familiar with the behaviourist idea that behaviour can be modelled as a response on the part of an organism to some environmental stimulus. Dewey criticized this view as early as 1896 and in 1928 he expressed the point again very clearly when he argued that something can only be a stimulus to an organism if that organism was already in some sense primed to react to it as a stimulus: “Any particular thing at any particular time is a stimulus, evoking an adaptive response and use, only in virtue of the enacted biography of the organism.” (Dewey 1928/1984:34; see also Dewey 1896). This complements the view expressed by Piaget when he wrote: “we should at least write $S \leftrightarrow R$, or $S \rightarrow (A) \rightarrow R$ (where A stands for assimilation into a schema)” (Piaget 1971a:8) instead of $S \rightarrow R$, the more usual formula.

As has been indicated, there appear to be close parallels between ‘transaction’, Piaget’s discussion of ‘structure’ (1971b), and Elias’ notion of ‘configuration’ (van

Kreiken 1997, 1998:75; see e.g. Elias 1974). In addition, Von Bertalanffy (1968:40) saw the transactional approach as corresponding with the open systems model, and Valsiner and Leung's "sociogenetic approach" (Valsiner & Leung 1994:207-8) also seems very similar. It should be noted, however, that the relationship between transaction, and structure, configuration, open systems, and the sociogenetic approach requires further study. Of Piaget, Valsiner and Leung (1994:206) comment that his views were in line with the early 20th century focus on organism-environment relations in many disciplines, and the same could therefore be said of Dewey and Bentley's ideas.

Now after this over-long introductory section, we can at last turn to Rosenblatt's transactional theory or model of the reading process.

Reading

In this section I will present an account of Rosenblatt's transactional model of reading and the reading process or event. This is drawn primarily from two publications (Rosenblatt 1994; 1998) supplemented by other books and articles (Rosenblatt 1938/1995; 1985, 1993). To facilitate readability and to save space, references to these works in the following sections do not always repeat her name unless it is necessary. Some of her positions are re-stated in a way that I believe strengthens the transactional aspect.

In order to develop this account of Rosenblatt's transactional view of reading I will look at different aspects of a reading event in turn. This necessarily involves some 'dissection' of the reading process. In reading the following sections this should be born in mind: for Rosenblatt, a reading process or event necessarily involves a developing reader-text relationship; it is not reducible to either reader, or text, as we have seen above.

Reading process

Rosenblatt remarked that our usual phrasing or way of thinking, talking and writing about 'reading' makes it difficult to do justice to that event (1994:16; see Reddy 1979). The very word 'event' may strike some as strange in this context, but it is consistent with the transactional approach, and central to her model of the reading process. The difficulty our usual language makes for expressing the transactional approach is that we tend to talk either of reader interpreting text, or of text producing a response in reader, phrasings that imply one way action. This distorts "the actual reading process. ... a situation, an event at a particular time and place in which each element conditions the other." (1994:16). Reading is a "dynamic, fluid process" (1998:887) in which many kinds of activity are going on; "an interdependent relationship in time between a reader and part of the environment, a text." (1998: 888; see also 1994: 17-19). In keeping with this approach, we might speak of *a* reading meaning such a situation or event rather than reading in general since this wording implicitly indicates specificity, and therefore a time and a place.

Reading involves a relationship, a transaction, between a reader and a text, but does the reading event only begin and end with the reader face to face with the text? One of the emphases of the transactional perspective is that we place whatever is under examination in the temporal and spatial framework within which it must be assumed

to be occurring. We can thus ask: When does a reading begin?; and Where does a reading take place? Rosenblatt does not pose these questions, but does suggest some answers that help frame this distinctive approach to reading.

Reading is an event that occurs ‘around’ or perhaps ‘centred on’ a face to face encounter between a person becoming a reader, and an artefact becoming a text (we will look at reader and text below). Thus a reader ‘brings’ their present concerns to a reading (1994: 12, 81) and uses cues provided by the way potential texts are stored and labelled, as well as their form, to choose which might become texts in the developing reading process (1994:72, 79). The reader also, in an important sense, ‘brings’ their past with them to the reading event (1994: 12) thus extending the temporal dimensions of a reading event. Then, of course, follows the actual transaction of reader-text, but the total reading event does not end when the physical link between reader and text is broken. Instead, efforts to make sense, to continue the transaction through recollecting the “evocation” of meaning the reader has generated, will continue after the face to face encounter of reader and text (1998:887-8).

Where does a reading take place? Rosenblatt does not discuss this, although she does refer to the readers current concerns and situation (1994:12). This apparent omission is probably because it is impossible to specify where with any more precision than ‘situation’ without considering specific reading events. While any reading event necessarily takes place where the reader-text encounter happens, this is not necessarily the significant ‘where’ of the reading process. The reader of a novel seeking the aesthetic experience of enjoyment can perhaps be said to be reading where (literally) they are, since such aesthetic reading can take place in a ‘space’ that is independent of any particular real space, other than one that is not too intrusive on the reading event itself. Reading for information relating to some other activity naturally includes the space of that other activity within it - or rather, reading then becomes one among several activities taking place in a wider situation the person is engaged with. This interpretation can be linked with Rosenblatt’s key distinctions between aesthetic and efferent reading, discussed below.

What are the results or outcomes of a reading event? Given a reader-text transaction Rosenblatt introduced the word ‘poem’ to refer to what the reader “makes of his responses to the particular set of verbal symbols. “Poem” stands ... for the whole category, “literary works of art” [referring] to the whole category of aesthetic transactions ...” (1994:12). A ‘poem’ in this sense “must be thought of as an event in time ... not an object or an ideal entity.”; it is the “experience shaped by the reader under the guidance of the text” (1994:12). In *The Reader the Text the Poem* (1994) Rosenblatt was primarily concerned with the aesthetic or literary reading process, so it was appropriate that she chose a term with literary associations, although she also used a more general term: ‘the work’ (1994:23). In a later paper she did not use ‘poem’ in this sense, but instead referred to ““the work”” being something “progressively constituted” as an “aspect of the reading-effect or experience” (1998:887). The work, it is important to note, “exists neither “in” the text nor “in” the reader” (1998:888) but is evoked in and through a reader-text transaction.

The process does not end here as Rosenblatt hints at a possible further phase of transactions as part of the reading process that could be thought of as a reader-work transaction resulting in meaning. Thus in the reader’s transaction with the text, she argued, “Meaning will emerge from a network of relationships among the things

symbolized *as he senses them.*” since the symbols point to elements in the reader’s prior (and ongoing) experiences that have become linked with those symbols (1994: 11). Or, as she wrote later: “The work ... is the emerging meaning—that part of the stream of thought that is felt to be linked to the text.” (1998:887).

We can now look in more detail at the question of ‘the text’ and ‘the reader’ in the reading process.

The text and the reader

Just what is it that is read? We have seen that Rosenblatt distinguished between the ‘poem’, the ‘text’ and the ‘work’ (1994:23, 1998: 887). In a formal definition of “text” she wrote that this word

designates a set or series of signs interpretable as linguistic symbols. ... [It] is not simply the inked marks on the page ... The visual ... signs become verbal symbols, become words, by virtue of their being potentially recognizable as pointing to something beyond themselves. ... in a reading situation “the text” may be thought of as the printed signs in their capacity to serve as symbols. (1994: 12).

Elsewhere she refers to text as “an object of paper and ink until some reader responds to the marks on the page as verbal symbols” (1994:23; see also p. ix) and “a pattern of signs” (1998: 901; see also 1994:11), and to the title of a work as simply marks on paper until interpreted as verbal symbols by someone (1994: 13).

Thus when someone encounters a physical object (e.g. of paper with ink marks on it) that person has first to distinguish the marks and then to treat the marks as verbal or linguistic signs (and not any other kind of sign). This process or series of events constitutes the transactions whereby the physical paper-and-ink object becomes a text - a set of “printed signs in their capacity to serve as symbols” (1994: 12) or as “a potentially meaningful set of linguistic symbols” (1994:78). This line of reasoning seems in keeping with Peirce’s semiotic perspective which Rosenblatt saw as underpinning her approach (1994: 181-3; 1998: 890).

Just as the text is constituted by the transactions of person-with-paper-and-ink-object, so the person becomes a reader through those same transactions, and in so far as the object becomes a text. The word ‘reader’ thus designates a transaction because a person only becomes (and remains) a reader “by virtue of his activity in relationship to a text, which he organizes as a set of verbal symbols.” (1994:18) - no person-text transaction, no reader. This is why earlier I wrote of a person↔artefact transaction through which each changes as a reader↔text transaction emerges.

Reader’s role

Rosenblatt was particularly concerned to counter views that stressed the autonomy of the ‘text’ and the consequent passivity of the reader (Rosenblatt 1994:1-5). Hence she emphasised the role of the reader in her discussion of the reading event. There are two main aspects to this: what the reader ‘brings to’ the event; and the choices or “stance” of the reader.

The person coming to a reading ‘brings’ with them a “linguistic-experiential reservoir” of past experiences with reading, and more widely, life and memories, as well as the present preoccupations, purposes and circumstances of the reading (1994: 12, 81; 1998:899-91). Although Rosenblatt writes of ‘bringing’ it is more consistent with the transactional approach to envisage that the reader’s past, purposes and so on enter the reading process (considered in abstraction from other processes the person is engaged in) in so far as they are activated by the reader↔text transaction. As she put it: “The reader’s attention to the text activates certain elements in his past experience ... that have become linked with the verbal symbols.” (1994:11). It is in this process that the reader actively constructs meaning from responses to the text by attending to “what the signs pointed to in their external world, to their referents [and] ... to the images, feelings, attitudes, associations, and ideas that the words and their referents evoked in them.” (1994:10). Here Rosenblatt implicitly draws on the Peircean semiotic framework (representamen/sign; interpretant; object/referent) which forms an underlying aspect to her approach (1998: 890; see e.g. Nöth 1990:42-3).

What does the reader’s activity consist of? Rosenblatt’s discussion of reader activity is bound up with her notion of reader’s stance, but before discussing that we can look at some general features or aspects of the reader’s activity. The proto-reader, in becoming a reader, constructs verbal symbols from the marks on the paper that constitute the physical text (1994:13). These symbols in turn are acted on to call forth or construct meaning (1994:22). This is not a mechanical process, analogous to a computer program, but a dynamic one:

As the reader’s eyes move along the page, the new symbolizations are tested as to whether they can be fitted into the tentative framework of meanings already constructed for the preceding portion of the text. (1998:898).

The reader attends to cues, to associations of the words that are attended to (or ignored) to responses that arise during reading (1994: 10-11, 13, 72, 75). Attention is *selective* involving a process of abduction (Rosenblatt 1998: 891-3) or the seeking of plausible hypotheses (Liszka 1996: 64-8). Thus the reader generates “hypotheses to guide the selection of clues to focus on, the proportion of cognitive and affective aspects of meaning to attend to, and their organization into tentative frameworks for further selective attention and interpretation.” (1998: 892). A reader cannot attend equally to all the stimuli presented by the text (Rosenblatt 1994:167), and thus selectively attends to signs/symbols, feelings, and referents (1994:10), testing for significance and meaning as they proceed (1994: 11; 1998:898). The context provides the guiding framework that shapes the reader’s responses to the text (1994:75). Rosenblatt linked further discussion of choice with her notion of stance (1994:25), to which we can now turn.

Rosenblatt argued that readers adopt a stance towards the text with which they are engaged, and she distinguished in particular between aesthetic and efferent reading processes (1994: 23-5). It is important to understand that these are not two discrete types of reading stance, but names for positions in a continuum: all reading involves different ‘degrees’ of aesthetic or efferent stance (1994:23; 1998: 893-97).

Stance

For the reader, the act of reading evokes potentially many responses or referents. As Dewey (1928/1984:34) had put it, an organism is surrounded by “indefinitely numerous conditions which affect it” and they cannot all be taken as stimuli (see e.g. Kastner et.al. 1998 for neurological confirmation of this insight). Rosenblatt pointed out that the word 'heart' will have particular associations for each reader, some due to the general use of the word; others to their own personal experience (1994:74-5). Which set of associations, or combination of sets, is activated in any particular reading event will depend on the “stance” or “attitude of mind” the reader “adopts” during that event (1994:27, 73, 75). Stance is a choice made by the reader. Choice, however, following William James, is not necessarily “a conscious pondering of alternatives” (1994:77). On the contrary, in addition to ‘conscious pondering’ that novices in particular may have to engage in (1994: 77-9; 1998:900-1) choice takes the form of habitual response to “cues set forth in the text” (1994:77). The way books are categorized, for example, the words in the title, may lead to an “automatic adjustment of stance” (1994:79) which is only possible given prior experience. The nonverbal setting in which the reading event takes place may also dictate choice of stance (1994:78) - someone confronted by a fire or seeking an antidote to poison is hardly likely to spend time reflecting on associations conjured up in the reading other than referents to relevant actions for the ongoing emergency (Rosenblatt 1994:79; 1998: 893-4).

The reader's stance, then, leads them to engage in different activities towards the text, or within the reading process (1994:23, 27), and determines their focus of attention (1994:75; 1998:894). The particular stance a reader adopts with a particular text whether automatically, habitually, or consciously, can be seen as falling along a continuum between two poles or types of stance which Rosenblatt named aesthetic, and efferent (1994:23-5 78; 1998: 893). The two types of stance give rise to corresponding types of reading process - aesthetic reading, and efferent reading (1994:23-5). Rosenblatt was at pains to stress that these types are points on a continuum, and that any reading typically partakes in some degree of both stances, though one or the other is likely to predominate (1998:893, 896).

Aesthetic stance or reading

In a literary (Rosenblatt 1938/1995: 292) or aesthetic reading, the reader's primary concern is with the experience of reading that particular text; with what is happening during the reading event (1994:24-7, 75; 1998: 894). In this respect we can think of the ‘where’ of aesthetic reading being centred on the reading event itself, to the virtual exclusion of all else. The words themselves, their sounds and rhythm, the “particular pattern of linguistic symbols” (1994:75) are important elements of aesthetic reading and therefore are specifically attended to (1994:26-7, 29). In this way, an aesthetic reading “involves the selective process of creating a work of art.” (1994:75). An aesthetic reading can only happen for a particular reader and a particular text. One text cannot be substituted for by another, say, a précis, for the second text is a different one. Nor can anyone read a text aesthetically for someone else (Rosenblatt 1938/1995:33; 1994:86).

Rosenblatt initially wrote of the reader in the aesthetic stance being concerned with both public and private (Rosenblatt 1938/1995: 292) or with cognitive and affective aspects of meaning (Rosenblatt 1985: 101-2). She subsequently found the

public/private distinction had caused some confusion, and wrote instead that in aesthetic reading, "preponderant attention is given ... to the affective aspects." of the event (1998:893). This shift appears to reflect her growing conviction that all reading involves both affective/personal and cognitive/publicly verifiable aspects, in varying degrees (see in particular Rosenblatt 1998: 896).

Efferent stance or reading

The word 'efferent' is derived from the Latin 'to carry away', and in efferent, "nonaesthetic" or "scientific" reading, the reader's primary concern is with taking something from the reading process itself, on actions after the reading (1994:23-4, 73; 1998:893-4), such as how to deal with fire, or a poisoning. In an efferent reading event, the reader is incidentally or instrumentally concerned with the reading process itself as their primary focus of activity or attention lies elsewhere. The 'where' of an efferent reading thus involves a far wider space than the reading event itself. Rosenblatt rejected the word 'instrumental' to describe this stance, however, feeling that it implied "a toollike usefulness that does not fit some kinds of nonaesthetic reading" such as that of a mathematician (1994: 24). The critical aspect of an efferent reading is that personal feelings or associations of linguistic symbols are suppressed, and attention is focused on publicly verifiable or operational referents (1994: 27, 73, 75), or, as she wrote later, "preponderant attention is given to the cognitive" (1998: 893). Unlike in an aesthetic reading event, a paraphrase or a summary of one text may suffice for the original, and one person can read a text on behalf of another (1994: 86) as there is not necessarily any particular value in the actual words and their relationships or in the reading experience itself.

In the context of discussing 'knowledge transfer' it is clear that we are primarily concerned with efferent and not with aesthetic reading. (This is not to say that the affective aspect is unimportant - as Rosenblatt remarked, little attention has been paid to the affective in "so-called nonliterary reading" - 1998:897).

Text role

In keeping with the emphasis of the transactional perspective we should not simply exchange approaches to reading that stressed the primacy of text for the primacy of the reader. The text itself is a "very important aspect" of reading as it provides "cues" relating to the appropriate stance (1994: 81-3). Some texts better serve one purpose than another (1994:81-3), but on the whole a text offers both openness and constraint (1994:x) and although Rosenblatt admits to some difficulties in speaking of the constraints (1994:78) she provides a useful account. She wrote of the text acting as a stimulus to guide the focus of the reader's attention, noting that she did not mean 'stimulus' as in the traditional stimulus-response model (1994:11). Although she did not explicitly make the point, implicitly she means 'stimulus' in the sense of $S \leftrightarrow R$ that we have discussed earlier. Thus, like a musical score (1994:13-14) the words in a text provide a context additional to that within which the reader is acting that serve to guide the reader towards selection of appropriate responses towards them (1994:75, 78). The context, both 'external' and 'internal' to the text also provides a constraint on the flexibility of individual words, thus 'stabilizing' their meaning (1994:75). In short, the text itself is a necessary but not sufficient condition for evocation of a work (1994:23).

Some concluding remarks

Rosenblatt's ideas were not developed as a result of painstaking experimentation and formal study, but rather as reflections on the experience of teaching English over many years. Her reflections must be appreciated against the eclectic background of her education and development which led her to draw on philosophy (particularly Dewey), anthropology, and linguistics among other disciplines (see Rosenblatt 1993:377-80; 1994 *passim*). It is perhaps useful therefore to know that her views have been substantially confirmed by experimental and practical work on the reading process, and the teaching of reading, particularly from a psycholinguistic perspective (Goodman 1985, 1996; Smith 1994). Halliday (1973:24) wrote from a sociolinguistic perspective of learning words and the structures of language as learning their meaning potential, a view that fits well with Rosenblatt's perspective. Brent (1992) has drawn attention to similarities between her positions, and those of others studying the reading and writing processes. Her basic ideas have also been endorsed by Wells (1999:72-3). Finally, we can note Lotman's (1990:80) views on the reader-text relationship:

Text and readership as it were seek mutual understanding. They 'adapt' to each other. A text behaves like a partner in dialogue: it re-orders itself (as far as its supply of structural indeterminacy allows) in the image of the readership.

Written (or spoken) descriptions (or 'explicit knowledge' as knowledge management writers would say) cannot function simply as 'containers' of something (knowledge) that is transferred to the reader/listener through their act of reading or listening. 'Gaps' in recipients' knowledge are not simply filled in as if 'knowledge transfer' was a matter of moving a substance from one container to another. Instead the reader actively constructs what they make of and take from a reading. We can view the reading process as a series of interconnected transactions, always remembering that these take place in specific situations:

person↔artefact
proto-reader↔sign-bearing artefact
reader (1)↔linguistic signs
reader (2)↔the work
reader (3)↔meaning

All these transactions, and particularly those of reader (1) through (3), take place iteratively. With the reader (3) transaction, particularly in an efferent reading, the transactions begin to include the wider situation of activity more explicitly as the reader also becomes once more the actor in the wider situation from which they entered the reading transaction.

It is important to note that the reader is not free to construe *any* work from any particular text. The text, as Rosenblatt insisted (and Lotman concurred) supplies a set of constraints within which the reader must work. The set of linguistic signs that constitute a text provide one set of bounds to the evocation process. Language, as Rosenblatt expressed it, “is at once basically social and intensely individual” (Rosenblatt 1994:20) and as social, this sets bounds on the evocation that necessarily involves *a* reader and *a* text. Moreover, in an efferent reading in particular where it is likely there is a predominantly instrumental concern, the reader’s perception of their situation or context, together with the readers linguistic-experiential reservoir, will set limits to the evocation.

Lotman, as we have just seen, suggested that one function of texts is a dialogic one. I understand this to mean that in so far as the work the reader evokes is perceived by them to differ from what they were previously aware of, a tension is set up that stimulates further inquiry, reflection, and thereby the development of new (for that reader) ideas. In so far as this reader shares schemas with others, a most likely and normal situation, then, especially in a particular context of some other activity, and again depending on the reader’s linguistic experiential reservoir, reading may stimulate the formation of functionally equivalent schemas. As a result, after reading (and any collateral activities, such as inquiry) the reader will be able to do new things. Thus an observer using an established but ultimately misleading metaphor may well proclaim that knowledge has been transferred!

There are probably more implications to be drawn from this perspective as regards the functions of texts, and, more generally, how one person can come to ‘know’ what another claims to ‘know’ already. I wish to draw attention to one further issue here - the importance of actually being engaged in some activity other than reading itself prior to and/or concurrently with the reading for knowledge ‘transfer’ to be possible.

Having already engaged in activities to which the reading pertains, a reader’s linguistic experiential reservoir will contain action schemata (Piaget 1971a) from that activity. In so far as the reader has names for significant aspects of that activity, and in reading evokes linguistic signs that are felt to correspond to that activity, reading may evoke the appropriate action schemas. As Dewey wrote: “by means of symbols, whether gestures, words or more elaborate constructions, we act without acting” (Dewey 1929/1984:121). On the other hand, of course, the reader may not yet have names for the activities, or may make mistakes in connecting words and activities. Someone who knows how to ride a bicycle may think they understand how to ride a motor-cycle after reading about the latter activity, but they may also be seriously

mistaken. Mistaken evocations (i.e. mistaken in the sense that inappropriate action schemata have been evoked) seem in principle likely to range from completely to marginally mistaken. At the marginal end of this spectrum we may find that reading evokes what I have termed functionally equivalent schemata - they are not the *same* as those of the person seeking to describe their knowledge and so 'convey' it, but when the reader tries to act, their acts will be virtually indistinguishable from those of the writer.

We can conclude by noting the role of texts as reported by Keller and Keller (1993). One of the authors was an amateur blacksmith, and their paper reports on the process of making a replica tool for a museum. Preparation involved a variety of activities, including reviewing historical examples and noting features; reviewing other information about the tool in contemporary catalogues and museum documents; reviewing previous making of similar tools; and reviewing information about materials, skills, production constraints (costs, time, personal reputation) (Keller & Keller 1993:130-35). These activities culminated in an "umbrella plan" an "orientation" towards the goal (Keller & Keller 1993: 135; 141). 'Knowledge' about the tool to be made could be generated from reading about such tools, as well as looking at pictures, in the context of previous experience with (apparently) similar activities. Certain differences between this and previous activities became apparent in the actual making process (i.e. the schemata were not entirely functionally equivalent) but this could be corrected for in the manufacturing process on the basis on previous experience.

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