

Oh, Yes, They Do: How Museum Visitors Read Labels and Interact with Exhibit Texts

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Look! Can you read? It says something.

Well what it says, it lived on the Isle of Wright.

This fragment of a conversation between a 10-year-old schoolgirl and her teacher was radio-recorded as they stood in front of an *Iguanodon* skeleton in the British Museum (Natural History) (BMNH). The visual observation made of them at the time indicated that they did not read or attend to the exhibit label beside the skeleton. Yet the recording shows that reading and the label's content were the subject of their exchange (McManus, 1985).

"People don't read labels" is a comment frequently voiced at gatherings of museum professionals, and the idea is almost a part of museum folklore (Borun and Miller, 1980). Some professionals even disparage the role of words in exhibit communications when they claim that the everyday ability of humans to negotiate shared meanings through the symbol system of language is a less compre-

meanings through the symbol system of language is a less comprehensible and a more abstract activity than communication through an unexplained “non-verbal language of real things” (Schouten, 1987). This report indicates that such judgments have been made because it is difficult to assess accurately whether visitors are reading by use of visual observation methods. It also shows that most museum visitors read, depend upon, and use exhibit texts; and it describes the place of these texts in museum communications. The report is based on findings from a survey of communication with and between 1,571 individuals in 641 visitor groups at five exhibits in the BMNH (McManus, 1987a).

OBSERVED BEHAVIOR

Visual observation of the reading behavior of 583 visitor groups was made at the five exhibits. Singletons—144 of the 583—were considered as groups of one. Almost half of the groups (48.4%) were observed as not having any member seen to read an exhibit text (Table 1).

Table 1. Reading behavior observed at five sites.

Behavior	N	%
Not seen to read	282	48.4
Brief glances at text	228	39.1
Comprehensive, attentive reading	73	12.5
Total	583	100.0

RECORDED CONVERSATIONS

Extremely significant statistical relationships were found between visually-observed reading behavior and the use of interactive exhibits, duration of conversations, duration of visits, and group type (McManus, 1987b). For this reason, further investigation of the visitor as a communications processor was made by examining 167 transcripts of recorded conversations. The recordings were made at the time of observations at four of the sites (Lucas, McManus, and Thomas, 1986).

Despite the high percentage of groups visually observed as not containing readers, the transcripts indicated that more than expected were in fact reading groups and that despite appearances people *do* read exhibit texts. In many groups, one member read segments of text aloud for his or her companions. This behavior was noted in

all-adult and child/adult groups and has also been reported in an American study (Hirschi and Screven, 1988). Some visitors closely paraphrased texts and used phrases from the texts in their utterances. All repetition of texts in conversations was dubbed "Text-echo."

The Text-echo—When visitors echo text, they bring the writer's words to life in their conversations and thoughts about the exhibit—the writer is introduced as a partner in their discourse. The following examples illustrate the phenomenon. The first is from a family not observed to be reading; the second is from a family observed as attentive readers. Both conversations took place at the interactive Sorting Game exhibit. The following key is used to enable readers to reconstruct the flavor of the conversations.

- () untranscribable words due to recording problems
- (.) a micropause: e.g., for intake of breath, to think (n.0) the duration of a pause in seconds; eg., while thinking of or waiting for an answer
- boldface type:** words from exhibit text



Site 4: Sorting Game, Origin of Species Exhibition. (Photograph by David Morbey, BMNH.)

In this conversation between a father and his young son, the text was read aloud in order to establish what to do.

Father: Different species? There's the human species (3) **press the button to clear the board (.) slide the discs up to make three groups (.) one group (.) in each dish do your groups contain the same kinds of living thing () (.) let's try this let's OK? This is (.) three groups OK that's a frog that's amphibian right?**

In the second example, parents paraphrase and read text both to explain the game *and* to "read" the meaning of a photograph beside the exhibit to their children. This text was on a panel to the left of the game and above a photograph of a person dipping a net into a pond.

How we recognize species. Sorting living things . . .

If you search a pond you will find many different living things. How would you sort these things out?

Mother: You start by (.) it says there (.) if you want and put a big (.) rod (.) you put a big net into a fishpond or swamp (.) and **how you would start to sort out the different**



Site 1: Insect Pests of House and Store exhibit. (Photograph by David Morbey, BMNH.)

Father: the different things which you would get out of your net

Radio-recording in the BMNH is difficult because it is a noisy environment that is also subject to electrical interference from nearby interactive exhibits. Recordings were made at four sites:

Site 1: Household Pests exhibit, Insect Gallery. A static exhibit of 24 individually-labeled home and store pests.

Site 2: Primate Game, Man's Place in Evolution exhibition (now removed). Visitors used touch plates to indicate which of the six animals in a specimen case was a primate.

Site 3: Iguanadon skeleton, Central Hall. A static exhibit with a free-standing label.

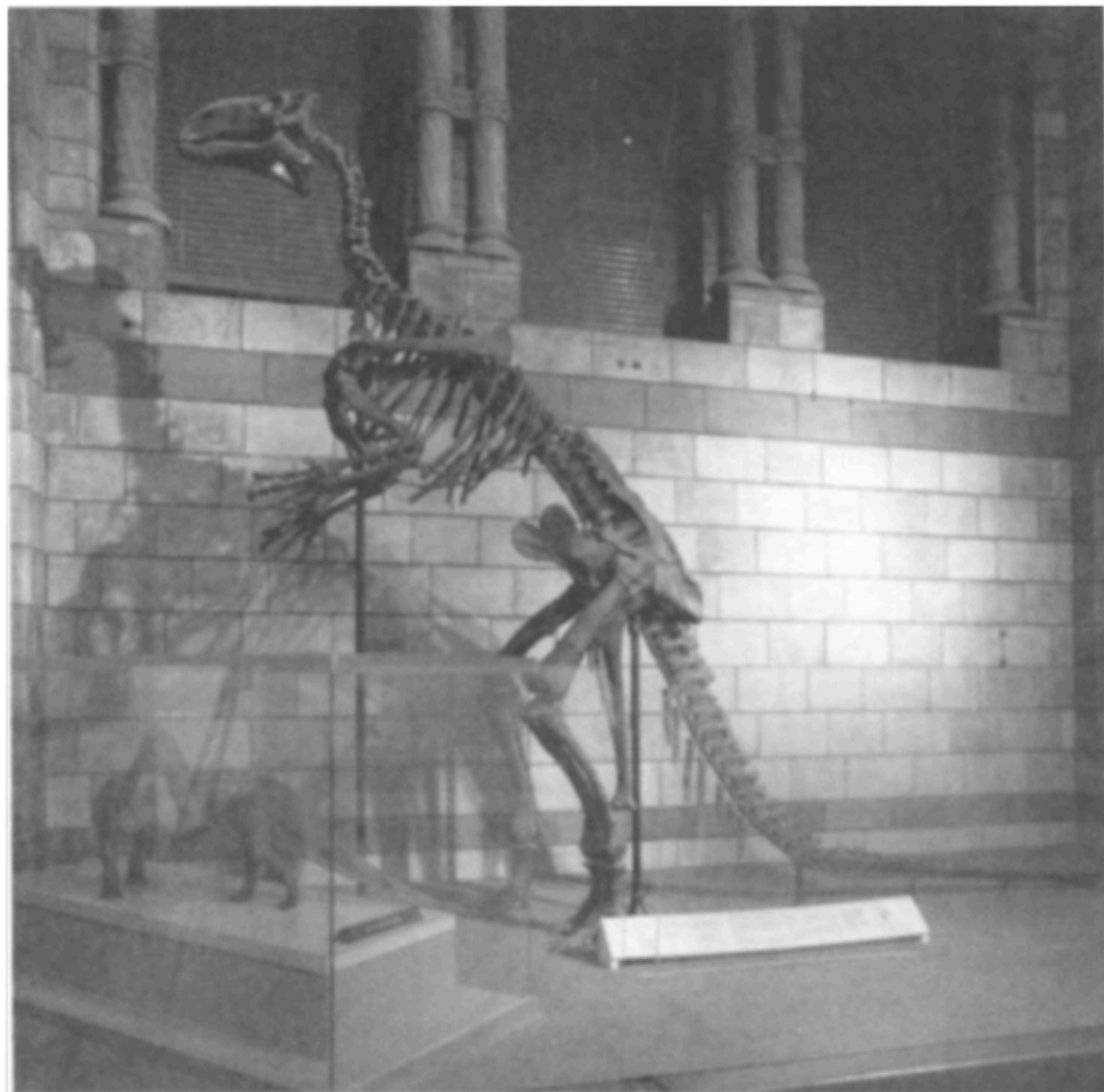
Site 4: Sorting Game, Origin of Species exhibition.

The complete and almost-complete transcripts reveal the presence or absence of Text-echo in 167 conversations (Table 2).

Text-echo occurred with slightly greater frequency at Sites 1 and

Table 2. Presence/absence of Text-echo in transcripts at four sites.

Site	No. of groups	Text-echo present		Text-echo absent	
		N	%	N	%
1. Insects, static	29	23	79.3	6	20.7
2. Primates, interactive	53	35	66.0	18	34.0
3. <i>Iguanadon</i> , static	17	13	76.5	4	23.5
4. Sorting Game, interactive	68	48	70.6	20	29.4
Totals	167	119	71.3	48	28.8



Site 3: Iguanodon skeleton, Central Hall. (Photograph by David Morbey, BMNH.)

3, but its presence or absence is broadly comparable (in percentages)

across sites. Around 7 out of 10 groups are likely to conduct conversations in which the exhibit team's words have a place. This is in contrast to the 5 out of 10 groups that would be expected to show this behavior if we were relying on visual observation alone (Table 1).

TEXT-ECHO AND VISUALLY-OBSERVED READING BEHAVIOR

Text-echo behavior of 114 groups was related to visually-observed reading behavior. The sample was reduced from 167 to 114 groups because of the omission of data from Site 2.*

The 114 transcripts revealed Text-echo in 84 conversations and 30 conversations without Text-echo. Of the 84 groups whose con-

* The Site 2 data are omitted because they may artificially exaggerate reading behavior, which was not visually observed as taking place. At Site 2, visually-observed reading behavior was coded according to whether visitors looked at the specimens as the text requested because it was near the touch plates, and a direct line of sight to visitors' faces could not be found. Visitors may have read the text but ignored the instruction, preferring to guess or already knowing the answer.

Table 3. Reading behaviors of groups whose transcribed conversations contained Text-echo.

Site	No. of groups	Reading Behavior					
		Not seen		Brief glances		Attentive	
		N	%	N	%	N	%
1. Insects	23	5	21.7	15	65.2	3	13.0
2. <i>Iguanodon</i>	13	6	46.2	7	53.8	0	0.0
4. Sorting Game	48	11	22.9	31	64.6	6	12.5
Totals	84	22	26.2	53	57.2	9	10.8

versations contained Text-echo, more than a quarter had been visually coded as nonreading (Table 3). The finding underlines the folly of assuming that people do not process exhibit messages unless they are seen overtly to read.

Of the 30 groups whose conversations did not contain Text-echo, 13 had a member or members who glanced at or gave attention to exhibit texts (Table 4). If these 13 visually-observed reading groups are added to the 84 Text-echo groups, 97 (85.1 percent) of the groups showed behaviors indicating that texts are attended to with more than cursory attention.

The data from Tables 3 and 4 add depth to the picture of visitor behavior shown in Table 1, which indicates much less language involvement with the text writer. Remember that the data are based on observation and recording of *groups*, since most people visit museums in groups. When visitors process an exhibit communication as a group, one member may take on the reading task for them all. (It would be odd if everyone *did* read individually!) This practice

gives more visitors access to texts than might appear to be the case from a cursory glance around the Museum or even from a survey of visitor studies, which commonly focus on individuals without taking the social context of museum visits into account (McManus,

Table 4. Reading behaviors of groups whose transcribed conversations did not contain Text-echo.

Site	No. of groups	Reading Behavior					
		Not seen		Brief glances		Attentive	
		N	%	N	%	N	%
1. Insects	6	5	83.3	1	16.7	0	0.0
2. <i>Iguanodon</i>	4	2	50.0	2	50.0	0	0.0
4. Sorting Game	20	10	50.0	8	40.0	2	10.0
Totals (all groups)	30	17	56.7	11	36.7	2	6.7

1987b, 1988). The majority of visitors obviously attend to exhibit texts. More than 8 out of 10 groups show direct evidence of having a member or members read exhibit texts, and 7 out of 10 groups voice the exhibition team's words so that the team is present by proxy in their conversations.

VISITOR INTERACTION WITH EXHIBIT TEXTS

Visitors interpret texts in an interactive manner—just as they interpret each other's utterances; they approach the exhibit within a communicative framework that includes the exhibit team. This situation is examined through illustrations from the conversation transcripts and then placed in a theoretical framework.

Someone Is Talking—When visitors process labels, they feel that “someone” is talking to them. This attitude is independent of reading-behavior category. Fragments from conversations follow.

What's the name of it? Does it say?

Andrew. Look at this one here, this tells you all the animals that eat things in the house.

No! It says it's a mammal.

Right, Sal. It says what about you.

Eighteen seventy-eight. That's what it says here.

No! It says you can do the ones that move and the ones that don't move.

It didn't say so. Sort them into three groups?

There's a game! It says, look, have you read it?

Visitors Talk Back—In some conversations, visitors respond verbally to the Museum “someone” who is communicating with them. Here, reading from text is in bold type; the visitor’s acknowledgment, reply, or query is capitalized; conversation addressed to companions is in ordinary type.

WHAT’S THAT? **Bread beetle.** Look at that.

Are you a primate? Yes, you are a primate. NO, I’M NOT.

What about you? Are you a primate? YES! I’M A PRIMATE AS WELL.

Look! Start with a clear board. Press the button below to do this. I’VE GOT IT. It’s just bringing the discs down to the bottom. THANK YOU, DOCTOR. **Slide the discs upwards to make three groups.**

When you have made your groups, do your groups contain the same class of living things? SSS? WHAT BOBS AND SNAILS AND ER.

Can you give your groups names? I DOUBT IT.

Visitors Keep to the Text Topic—Conversations were about the topic established by label writers. Instances where visitors shifted from the exhibit topic to introduce an unrelated topic were exceedingly rare in the transcripts. One cannot introduce a topic without being a party to the discourse, and the leading role visitors assigned to the exhibit team indicates the high status given to the team within their communicative framework. Brown and Yule (1983:68–83) discuss the topic introduction and control aspects of conversational interactions.

To summarize: Visitors react as if the team is talking to them through the exhibits, and they vocalize their interaction with the team. Teams exert considerable topic control over conversations through label texts, and groups are very likely to voice segments of the team's messages, activating the words as parts of conversations. Thus consideration of the relationship between visitor and exhibit team as close and conversational is justified.

THEORETICAL FRAMEWORK FOR THE CONVERSATIONAL RELATIONSHIP

The interactive nature of written texts can be explained theoretically. In a comprehensive survey of psycholinguistic research into the processing of oral and written language conducted over the past 40 years, Cambourne indicates that comprehension is “always the underlying, primal purpose to any act of listening or reading” (1981,

p. 85) and concludes that "in terms of comprehension, the two modes of language are subject to identical processes" (1981, p. 93). Cambourne explains that both effective reading and listening are characterized by a predominantly "inside-out" flow of information as we make predictions about the meaning and grammatical structures that are about to be encountered; no processing distinction is brought to bear in comprehending the two language modes.

Stubbs (1983; pp. 194–213) also discussed interpretative procedures and features of discourse organization that operate equally in spoken and written language. He explains that devices for presenting semantic content are interactive since they design discourse for hearers or readers (1983; p. 212). He also notes that, for a first-time reader, the process of comprehension of a written text is similar to the comprehension of spoken language. The work of Cambourne and Stubbs explains why museum visitors occasionally respond verbally to the interactive texts of the exhibits before them; many more must make a similar silent response.

Texts other than exhibit labels have been shown to be interactive. Roe (1977) and Tadros (1980) have analyzed interactive linguistic

devices in academic educational texts. Roe (1977) also analyzed distance-learning texts prepared by the British Open University for home-based students, using a system of linguistic analysis originally designed for conversations. He found them to be highly interactive in the conversational sense. Open University texts typically contain many interrogative and imperative statements, as do exhibit texts in the BMNH's new-style exhibitions. "Two points of special interest [about the new exhibitions] are the careful structuring of information in the displays and the attempt to involve visitors actively with them" (Miles, 1986). Both the Open University and the BMNH present texts that allow readers to form a close conversational relationship with the writer. Both aim for comprehension by a general audience, both institutions employ a "what you need to know about this subject" approach, and both explicitly relate teaching points one to another.

To summarize: The intent to avoid specialized language registers and to design texts for general readers is bound to lead to a close conversational relationship between author and reader, especially when the reader is inclined to form such a relationship anyway. This tendency is further developed in the museum setting; here, text language—like oral language—can be interpreted and its meaning verified within a relevant context. For everyday spoken language, verification is simple: Look around. Using Cambourne's (1981) example, the meaning of "I'm waiting on the table" can be verified by checking to see if the speaker is dressed as a waiter or waiting for a table to appear on a computer printout. In the museum, the visitor

has the same verification option—to interpret the meaning of texts by referring to the rest of the display.

The closer the conversational relationship between the museum writer and visitor, the more likely is successful communication. Visitors are likely to work toward such a relationship. The difficulty appears to be persuading text writers—who work without seeing their readers face to face—to try to communicate within such a framework and assumed relationship. Rand (1985) describes progress toward this goal and points out that once such an approach is accepted, we still have to explore how to “keep up our end of the conversation.”

WHAT VISITORS REQUIRE FROM EXHIBIT TEXTS

Satisfaction of the Visitor's Interrogative Framework—Visitors employ an interrogative framework to prescribe the boundaries of a label communication. This first step, “outlining behavior,” is then

followed by predictive processing of the text message. A woman's questions as she approached the Sorting Game exemplify the interrogative framework. (The communicative meanings are shown in italics.)

What's this? (*What is the discourse topic?*)

What's going on? (*Where lies the action? What is being said about the discourse topic?*)

The visitor is asking for clear establishment of reference to topic and an easily perceivable, cohesive explanation that can be followed, engaged with, and evaluated. The questions reflect fundamental concerns apparent in all visitors' conversations—they are eager to find out and indeed need to know broadly what is being said before they can engage mentally with the communication. The urgency arises because visitors have only the text as a source for their answers. They cannot rely on the knowledge of social context or of participants or on queries to speakers, which we all use as supplementary information sources in face-to-face conversation. The text must supply all the information needed to satisfy the interrogative framework.

Adherence to Topic—The two fundamental rules for dealing with what is being said in a label text—establish reference clearly and explain simply—may appear obvious, but they are often not followed. Failure to attend to them affects the path of communications fundamentally. The chief tendency is an unconscious shifting of the

area of reference. Texts about diet shift into discussions about dentition; texts about the impact of new technologies slide into descriptions of the equipment's mechanical functioning; and texts about an artifact's aesthetic or design qualities move on to its creator's life history. Topic shifts are tolerated in face-to-face conversations because we use such encounters for both social interaction and transfer of information. Topic shifts in distance communications cause them to misfire. Instigators of distance communications must clarify rigorously exactly what they want to say and then stick to their intentions. Otherwise, the receiver of the message is likely to become angry, confused, or bemused.

Establishing Orientation to Topic: The Conversational Frame— The 1,382 individual discourse acts found in 41 transcripts representing all types of visitors from Sites 1, 2, and 4 were placed in different categories (McManus, 1989). This analysis revealed only three instances (0.2 percent of all acts) of visitors relating exhibit content to past personal experience with phrases such as "I remem-

ber those kinds of moths as well.” The comments were all made at Site 1, Household Pests exhibit—of all the exhibits investigated, the one most related to everyday life; this relationship appears to have induced the behavior. Apparently visitors do not commonly seek to anchor their understandings in their everyday experiences. The conventional wisdom is that communicators should anchor new material in the everyday experiences of those they are communicating with. Since visitors do not do this very closely themselves, maybe we should concentrate on the importance of clear introductory explanations as orientation to new topics—backed up, perhaps, by localization of the themes discussed.

Readability and Conciseness of Texts—Visitors are not likely to attend to the entire text of a label for two reasons.

1. Visitors in groups want to enjoy and maintain their social relationships; they are likely to get what they can take rapidly from the exhibit message and feed it quickly into their conversations. The text writer will not be permitted to dominate the language situation in the way that a teacher does in the classroom.

2. Fluent reading for comprehension does not require attention to an entire text. Visitors will scan and sample segments of it to confirm that the meanings they have already predicted are there. The surer visitors are of the topic and content of a text and the more familiar with the syntax used, the less they need to read.

If the topic is not established or the style is unfamiliar (too formal or academic) or jargon is used or there is any other kind of “noise”

in the presentation, visitors will have to slow down and attend more to the text if they want to find out what it is about. If the reading rate drops below 200 words a minute, their comprehension will be severely hampered (Cambourne, 1981; p. 93). Exhibits are often rated as “successful” if visitors are visually observed to spend a lot of time at them. If this time is taken up in painstaking reading that blocks both understanding and visitor conversations, “holding power” estimates can be very misleading signs of success.

An Appropriate Conversational Tone—The way things are said affects the path of communications. Helpful clues about the way things *should* be said can be discovered by looking at the way visitors talk to each other. The way things are said also covers the way things are *not* said, so we are also interested in the ways visitors do not talk to each other. The analysis of the discourse acts in 41 conversations (McManus, 1989) showed that closed questions are not favored in naturally-occurring small-group discussions where people obviously

prefer to keep their talk open and exploratory. Closed questions had a very low frequency (2.7 percent of 1,382 discourse acts); replies to them had an even lower frequency (1.9 percent).

The closed question is a pedagogical device to which teachers must resort if they are to monitor the understanding of large groups who do not have freedom of interaction; the teacher always knows the answer, and the respondents know that this is the case. In the museum visitors' conversations, closed questions took this form:

Would you say (·) this is a predator isn't it?

Of the visitors who were asked such questions, about a third did not answer. Closed questions in exhibit texts will be likely to meet with equal disfavor and ignored if they disrupt interaction. The Primate Game (Site 2) was in a multiple-choice, closed-question format alongside obscure presentation of the information needed to form the correct answer. Visitors recognized the closed-question situation; they knew that the correct answer was in the exhibit team's mind and that they would be given it after pressing one of the six touch plates. They avoided working out the correct answer and, instead, enjoyed the fun of interacting with each other in a guessing game.

An Appropriate Social Tone—The discourse-act analysis also showed that directives such as "Look at this!" had a low frequency (2.2 percent), indicating that authoritarian forms of interaction are not acceptable to small groups. They were very likely to be challenged with a response asking for the reason for the directive rather

than obeyed unquestioningly. Such challenges to authoritarian instructions indicate that visitors are alert monitors of the purposes of their physical actions. They will be just as alert for supporting reasons for any actions required of them by the team. If visitors are asked in an authoritarian manner to interact physically at a hands-on exhibit and can't quite see the purpose, they will respond very negatively:

Is that a totally meaningless game?

I must say that's absolutely barmy. I can't quite see the hell of it.

They will also want to know if they have succeeded in solving a problem unless they are told that the solution is open ended:

How do we know if it's right or not? That's going to bother me that is. Is it right or not?

Interactive exhibits can be very rewarding for visitors, and there will probably always be some people who are confused by individual exhibits. If communicative interaction is to take place, the exhibit

team needs to give more reflective consideration than is often realized to how they, their instructions, and their explanatory texts work together for users.

DISCUSSION

This report has looked closely at what people do and say in the BMNH. The understandings that people forge in the Museum are based on a link established between visitor and exhibition team through the language used in exhibit texts—although the exhibits are forms of visual communication. Words come first. Human beings communicate most surely with them. Visitors need words to know why Museum people show them the things they collect and know about and what they, as visitors, are required to attend to when they consider these things. However, in displays, words and content-based items such as specimens, photographs, diagrams, and films work together in an equal and complementary dependent relationship. An underinterpretative exhibition, short on explanatory text, is at worst incomprehensible and at best ambiguous. An overinterpretative exhibition showing an undisciplined flow of text on every flat surface—the book-on-the-wall exhibition—is boring, tedious, and ultimately uninformative.

The data presented here are inconsistent with the “received wisdom” that “visitors don’t read labels.” On reflection, these findings should not be surprising.

1. *Reading is difficult to observe visually.* The average literate

human being processes print at the rate of 250 to 350 words per minute; a visitor can read 20 words or more in five seconds while walking toward an exhibit. Visitors can look at texts placed near the operating parts of interactive exhibits without an observer being aware that reading is taking place. Also, the apparently common practice of individuals taking on the reading task for the whole group hides the magnitude of the recourse to exhibit texts.

If we can't reliably tell if visitors are accessing information from exhibit texts by looking at them, can we find out by asking them? Unfortunately not. Reading behavior is extremely difficult to self-report, especially in a cultural environment saturated with print. We process the texts of shop signs, street and transport signs, advertising messages, and newspapers all the time. In a museum, the visitor walks about processing titles and contents of labels. We judge the texts we come across as worthy of full attention when our curiosity is aroused; even then, because of the way we process texts for meaning, we have great difficulty in reporting what has actually

been read (Cambourne, 1981, pp. 87–94). “Not seen to read” and “not conscious of reading” do not necessarily mean that reading has not taken place.

It is not surprising then, that visitors in museums are likely to be recorded in observational studies as nonreaders. This is particularly likely to occur if the observer is looking for dedicated reading or “swotting over labels.” If you sit in a museum and watch people walking about and stopping at exhibits, it does look as if not much reading and a lot of looking or playing at interactive exhibits is going on. Casual observation elicits the intuitive response that exhibits texts are largely ignored.

2. *The prejudice that visitors don't read labels supports the notion of the relative unimportance of exhibit texts.* It is easy to think that visitors don't read because they don't need to, and that therefore texts are unimportant because visitors don't want them. Exhibit communication is a form of visual communication in which the focus is on objects arranged in a display. People come to the museum to look at the special items “on show.” The curator or educator with specialist knowledge of such items holds that knowledge internally, so that he or she can express it in speech or writing. But when he or she looks at the item, it can appear to represent the knowledge he or she has of it. Such externalization, or “objectification” (Sless, 1981; pp. 30–31), gives rise to the notion that it is “obvious what it is” and can lead to downgrading the importance of texts in visual communication. The mental sleight of hand involved in the externalization of knowledge is caused by the nature of our language, which has been developed to describe the physical environment

(Popper, 1969; p. 312) and the way we use language in thought, and thinking in seeing, so that seeing (to the informed) seems to do the work of thinking (Wittgenstein, 1958; p. 184). The professional expertise and orientation of those who understand a great deal about the things they present in the Museum works to support and in turn is supported by the intuitive doubts about the relative value of exhibit texts gained from casual looking about or poor visual observation procedures.

These natural tendencies to externalize knowledge and to doubt the visitors' need for and use of texts may bias the attention, involvement, and emotional efforts entailed in exhibit communication toward a focus on physical objects of special propositional value in the message and the methods of display of those objects. When this happens, the text component of visual communication comes to be regarded as an ancillary adjunct in the exhibition-development process. It should be regarded as an integral part of

the communicative effort since visitors—because they are “beginners”—need good texts that establish reference clearly and explain simply.

We have all probably read tediously long or cryptically brief labels that result from professional lack of application in facing the task of verbal communication through texts. If professionals don't value texts in their communicative task, why should they think that visitors value and attend to them? What do visitors themselves think of the role of texts? I take the answer to this question from the mouths of two 10-year-old boys at the BMNH. As they walked up to an exhibit one boy asked the other:

What's this?

His friend looked at the exhibit and replied:

What to do?

Then followed this memorable line:

Yer gotta do read the board first.

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