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ABSTRACT

Conventionality can be defined as discourse used in its dominant or most familiar sense. In nonliteral language, the intended message is different from the overt message. It has been demonstrated that nonliteral language can be comprehended as rapidly as literal language if both are placed in linguistic context. A study examined whether this held true when unconventional nonliteral language is used. Respondents rated the familiarity of 119 proverbs. Literal and nonliteral contexts were generated for 12 familiar and 12 unfamiliar proverbs. Overall, familiar proverbs were read more quickly than unfamiliar ones. Furthermore, unfamiliar proverbs used in their figurative sense were read more slowly than unfamiliar proverbs used in their literal sense. A follow-up study examined the equivalency in processing of familiar and unfamiliar messages. Students were handed 32 sheets, each bearing a proverb or its paraphrase. The participants were to paraphrase the statements. A familiar proverb, even when placed in its literal context, often generated its figurative meaning, while the reverse was true of unfamiliar proverbs. It appears that some processing differences exist in comprehending literal and figurative language. (Eight figures are attached.) (SG)

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Context Effects in Comprehending Familiar and Unfamiliar Proverbs

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I would like to talk today about conventionality and nonliteral language.

By conventionality I am talking about discourse used in it's dominant or most familiar sense. Consider, for example, the sentence at the top of the first overhead ("an empty sack cannot stand upright"). Most of us would assume that the intent of the sentence is to tell us something about, "sacks", and their properties. In other words for this sentence the conventional use would be that of a literal statement. One can contrast that with the highly familiar proverb in the bottom of the overhead ("too many cooks spoil the broth") ; in this case few of us would assume that the intent of the speaker is to tell us about cooking, rather the conventional usage would be in contexts involving efficiency in the division of labour.

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overhead first

By non-literal language I am referring to discourse such as that found in the next overhead. In these examples it is clear that the intended message is different than the overt message: thus (in the examples shown), the speaker is not claiming that an identity relationship holds between a city and an occupation, is not asking whether or not money is present and, in the last case, is not talking about grass, but about hopes for the future. The

first sentence that I showed you, that is "an empty sack cannot stand upright" is a proverb, but one that will be unfamiliar to most of you. Nonliteral language of this sort is both common and, in most cases, readily interpretable. In fact, 12 years ago Andrew Ortony and collaborators (1978) demonstrated that nonliteral language can be comprehended as rapidly as literal language if both are placed in linguistic context. Their classic experiment involved embedding an ambiguous sentence target in a paragraph; the paragraph context was varied such that in one case a literal interpretation of the target was sensible whereas in a second case a figurative interpretation made sense. Using an example from above, the analogous conditions would be to present a target proverb, such as "the grass is greener on the other side" in two contexts---a literal context in which the topic of discourse is the grass in the neighbours irrigated field, and a figurative context in which the topic is the quality of life of some acquaintances. Ortony et al found that the target sentence was read equally quickly in either it's figurative or literal sense, when placed in the appropriate context. Over the years this type of result has been replicated with variants of the Ortony procedure and with an assortment of nonliteral targets.

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overhead two

Largely on the basis of these studies an axiom has emerged in the literature. The axiom can be found in the statements on the next overhead. Basically the

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overhead three

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axiom is that figurative language is not different than literal language in terms of speed of processing, and by inference, in terms of the processes involved. The latency data, which is one of the corner-stones of the axiom, is especially important since it has been taken as a disconfirmation of a previously popularly held notion that, relative to literal language, the comprehension of figurative language involves an attempt to find literal meaning in an utterance and, only when that fails, is figurative comprehension attempted.

One can see that we have distinguished between two versions of the axiom. The more optimistic theorists see the comparability of literal and non-literal language as a general statement of fact, whereas the more cautious have limited the statement to conventional language. In our examination of the literature, we tend towards the more cautious position. We base our cautiousness on several factors.

First, a review of the literature indicates that most of the studies which have compared literal to non-literal language in context, have employed conventional uses of nonliteral language. Consequently, it is premature to assume that the same findings will occur with unconventional nonliteral language. Moreover in many of the reported studies, literality and conventionality of the target is confounded, making it difficult to ascertain whether findings are due to the literality of an utterance or to it's conventionality. In the studies that I will report presently target conventionality will be manipulated. Moreover, target conventionality will be crossed with literal truth-value. This design should allow us to disentangle the effects of literalness and conventionality. Second, in many of the studies, there have been few attempts to determine whether the contexts are comparable for both literal and nonliteral targets. For example, the attempt to make a sensible target often leads to a contrived context, and it may well be that the relationship in meaning between the context and target is more poorly integrated for some types of items than others. In the studies reported today the comparability of context content will be addressed by comparing the comprehension latencies between proverb targets and a literal paraphrase of the proverb placed in the same context. Comprehension latency differences should reflect processes due to the linguistic form of the target, and not differences engendered by context or target meaning. Finally, before the axiomatic equivalence of literal and nonliteral comprehension can be accepted, converging evidence is required. A final study will

attempt to provide converging evidence through the use of memory, and not comprehension latency data.

The experimental design of the first study is depicted in the next overhead. Familiar and unfamiliar proverbs were placed in a context that brought out either their figurative or literal meaning. Familiarity was determined by a norming study involving respondents who rated 119 proverbs taken from standard reference sources; only proverbs rated as very familiar--over 5 on the 7-point scale, and very unfamiliar, rated less than 1 were employed. Two contexts were generated for 12 very familiar proverbs and for 12 very unfamiliar ones. One context favoured the figurative sense of the proverb, and the other context favoured the literal sense. Finally, in order to control for differences that the contexts might have on the processing of the target, literal paraphrases of each proverb for each context was generated.

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overhead four

Our sample was simply asked to read a subset of these paragraphs. The dependent variable of interest was reading time. Recall that the overall design involved 2 types of proverbs, 2 contexts, and a comparison of each proverb with a matched literal paraphrase. Each participant received 3 different items from each of the 8

cells depicted on the overhead. Naturally a given proverb or context was not repeated for any participant; across all participants each item was employed equally often in each condition.

The task was as follows. Participants were asked to read a set of paragraphs, presented one sentence at a time on a computer screen. Participants initiated presentation of the first sentence of an item randomly chosen within the constraints discussed above. The participant also controlled the length of time this sentence, and each subsequent sentence, was present for viewing by using selected computer keys. The participant could also review any past sentence in an item. We recorded reading time, the length of time each sentence was kept for display, and the number of reviews of any given sentence. There were no differences in reading times for the different contexts; however reliable differences emerged in the reading time of the target items--i.e. the proverbs or their paraphrases. The relevant data are presented in the next overhead.

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overhead 5

The results are very simple. Familiar proverbs and their paraphrases were read equally quickly, regardless of context. This is, of course, confirmation of the axiomatic wisdom that

literal and figurative language is equally easy to comprehend and, by inference, supports the contention that figurative language does not require an initial attempt at literal comprehension. Overall the familiar proverbs were read more rapidly than their unfamiliar counterparts. Of greater importance, unfamiliar proverbs used in their figurative sense were read more slowly than these same sentences used in their literal sense, and more slowly than a literal paraphrase of the proverbs meaning placed in the same context. These data do not support the strong axiomatic position that context makes literal and figurative meaning equivalent; it does so only for familiar figurative usages and not for more novel usages. Moreover, our results cannot be attributed to artifacts caused by different contexts since an unfamiliar proverb is processed more slowly than a literal sentence placed in the same context, when that literal sentence expresses the same meaning as the proverb. These data also do not appear to support the contention that the equivalence in processing seen in some earlier studies is caused by a confounding of conventionality and literalness. If conventional usage is rapid then one would have expected that literal uses of unfamiliar proverbs, and figurative uses of familiar proverbs would be read more quickly; the superiority in reading was not seen with the figurative use of familiar proverbs.

In general these data indicate that the figurative meaning of familiar proverbs is as available as the literal meaning of those

items. For unfamiliar proverbs, however, figurative meaning is not as readily available. The differences in comprehension latency that are observed support the contention that processing differences occur for literal and proverbial language when this language is unfamiliar. The equivalency in processing of familiar items is more problematic since, as Gibbs and Gerrig correctly point out; "the equivalence in time required for a person to understand a literal or metaphorical utterance gives no assurance that the same processes are involved". In a second study we attempted to look at the question of equivalency by examining some of the memorial consequences of processing proverbs in context.

This follow-up study was very similar to the reaction time study just reported. A subset of the same stimuli were employed. Each participant received only 2 paragraphs from each of the 8 conditions in the design. The initial phase was identical in that a set of 16 paragraphs was presented one at a time, and the reading time of each sentence recorded. As can be seen in the next overhead the latency data completely replicated the latency data from the earlier study.

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overhead 6

The novel aspect of this study involved an unexpected memory test that occurred immediately the reading task. Participants were handed 32 sheets with the proverb or it's paraphrase typed on it. The participants were asked to choose the exact items that they had read, write a paraphrase of it, and write everything that they could of the context.

Given the limited time available to me today, I would like to concentrate on only two aspects of the memory test, error data based on context-inappropriate paraphrasing and memory for context. Recall that participants were asked to give a paraphrase for each target they claimed to have read. For instance, if participants read "an empty sack cannot stand upright" in a literal context, then an appropriate paraphrase would be about sacks and their properties; if they had read the same target in a figurative context, an appropriate paraphrase would be about people and the characteristic of being superficial or their need for social support. We asked ourselves whether participants would sometimes give the inappropriate context interpretation. Observation of errors of this sort would suggest that the alternative interpretation was generated to the target, even though the other interpretation was invited by the context. The data of importance are shown on the next overhead.

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overhead 7

These data are very clear. A familiar proverb, even when placed in a literal context, appears to generate it's figurative meaning; literal meaning is less likely to be generated when the proverb is placed in a context that brings out it's proverbial sense. The complete reverse is found with unfamiliar proverbs. Now we see that, even when the context is figurative, a literal interpretation is generated; however figurative meaning is not forthcoming when the same item is placed in a literal context. These data strongly suggest that the conventional meaning of the proverb is generated, regardless of context whereas the less conventional meaning is not generated, except when the item is placed in a specialized context. These findings are consistent with the latency data only for the unfamiliar items. With familiar proverbs, however, we have the suggestion that different processes might be operative. In general the data indicate that participants appear to automatically produce the conventional meaning of a proverb...that is, the figurative meaning of familiar proverbs and the literal meaning of unfamiliar proverbs.

Thus it seems that some processing differences exist in comprehending literal and figurative language, even for familiar proverbs. Latency data of the type produced by Ortony et al., and many others since, including the results of the two studies we have reported today, are insensitive to these differences, perhaps because conventionalization occurs very rapidly or because it proceeds in parallel to the access of non-conventional meaning invited by context. Regardless one might expect that

non-conventional uses should be somewhat more difficult to comprehend and integrate with the context. We speculated that one place that these difficulties might arise is in the comprehension of the context. With non-conventional uses the context has to be processed more elaboratively in order to find a sensible meaning of the target, and should consequently be better recalled. The final overhead is a presentation of these data.

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overhead 8

As can be seen, the data are consistent with our speculations. More of the context is recalled when a familiar proverb is used literally, and an unfamiliar proverb is used figuratively.

Taken together we would like to conclude:

1. The latency data confirms only the cautious or weak form of the equivalency axiom. The time to comprehend literal and figurative interpretations of proverbs is equal only with familiar items. When the proverb is unfamiliar, processing time is longer for the figurative interpretation.

2. The latency equivalency found with familiar proverbs masks processing differences. The memory data suggest that the important distinction might be between conventional and non-

conventional uses of language, and not between literal and figurative language. Conventional uses of a proverb are made available rapidly, even in contexts that invite the nonconventional interpretation. This relative availability of conventional meaning is reflected in the frequency of context-inappropriate paraphrases and in the recall of the context in which the proverb is embedded.

OVERHEAD ONE

AN EMPTY SACK CANNOT STAND UPRIGHT

TOO MANY COOKS SPOIL THE BROTH

Metaphor:

e.g.

BABYLON IS THE MOTHER OF HARLOTS AND ABOMINATIONS

Indirect

Requests:

e.g.

CAN YOU SPARE A DIME?

Proverb:

e.g.

THE GRASS IS GREENER ON THE OTHER SIDE

OPTIMISTIC VERSIONS OF THE AXIOM

e.g.

"The presence of context makes comprehension of metaphor no different from understanding literal language" (Gibbs & Gerrig, 1989)

"Metaphors require precisely the same kind of contextual information as do comparable literal expression" (Glucksberg & Keysar, 1990)

MORE CAUTIOUS VERSIONS

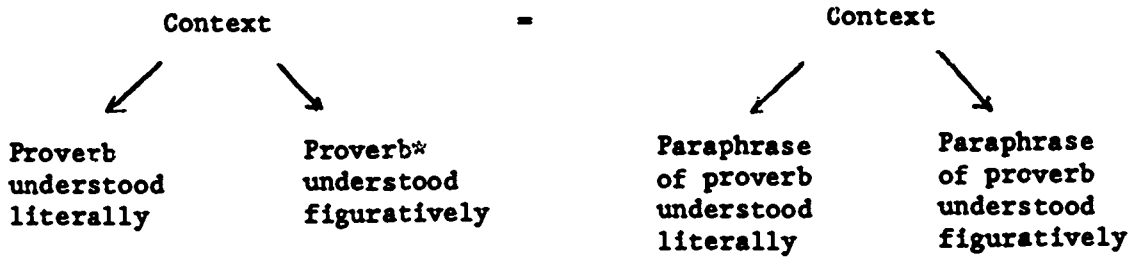
e.g.

"As long as figurative language and indirect speech are apt, familiar, conventional, and in context, they are directly interpreted" (Insup Taylor, 1990)

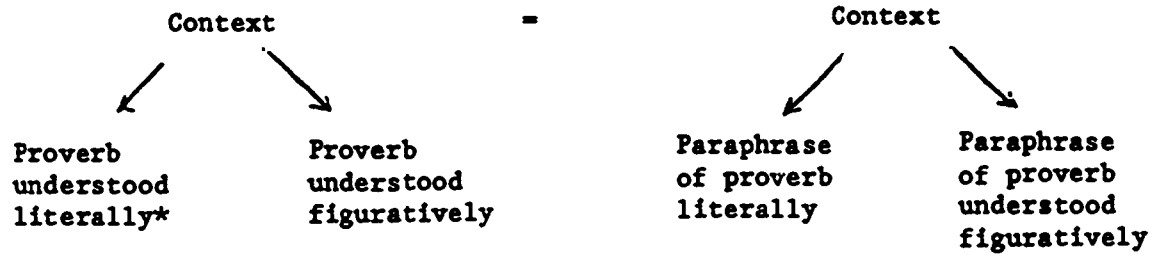
"In .... highly familiar metaphoric schema ... the logically separable steps of metaphor understanding may have fused into single mental steps. In fresh metaphors the logically separable steps might also be psychologically separate" (McNeill, 1985)

OVERHEAD FOUR

TARGET TYPE: FAMILIAR PROVERBS

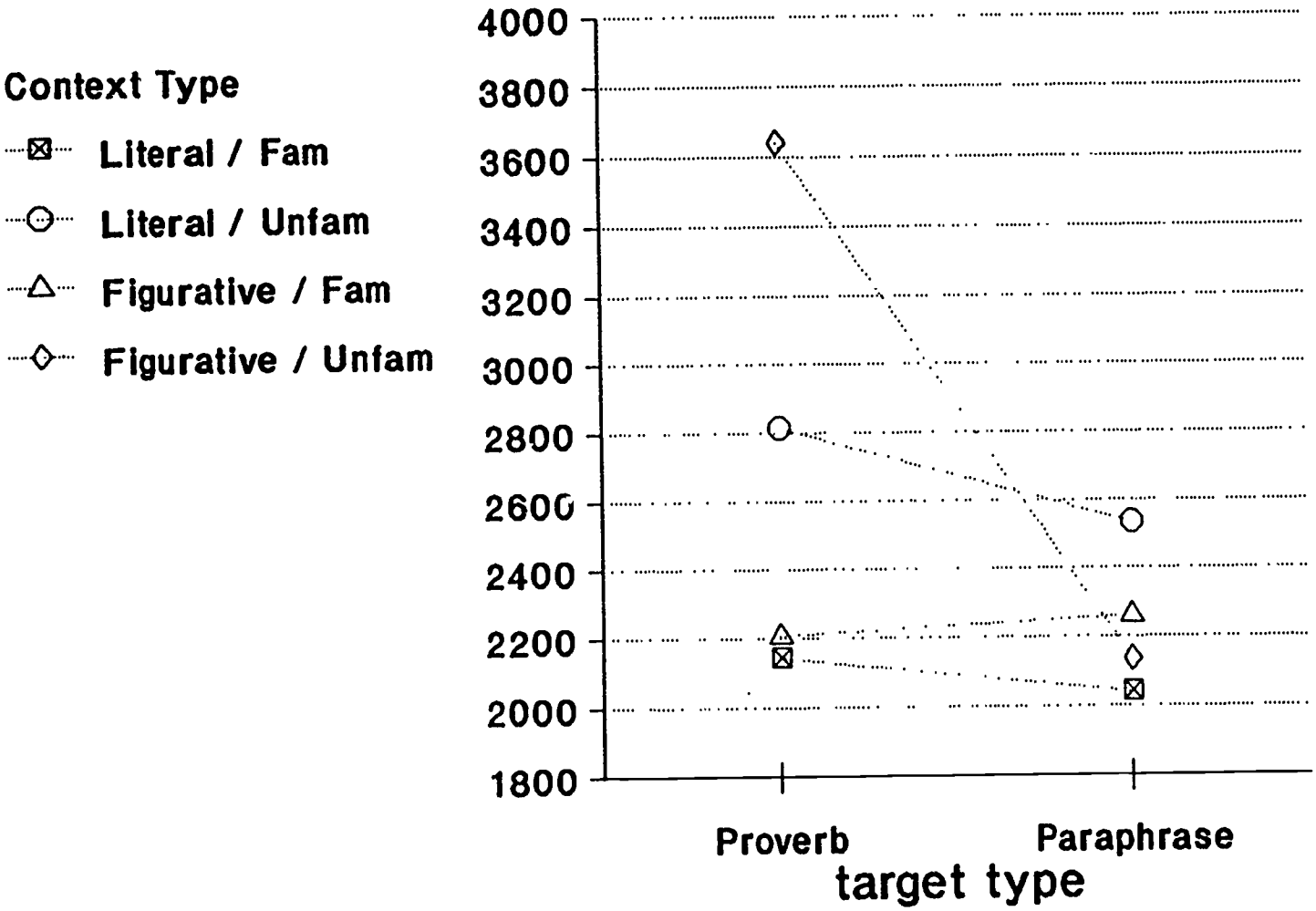


TARGET TYPE = UNFAMILIAR PROVERB

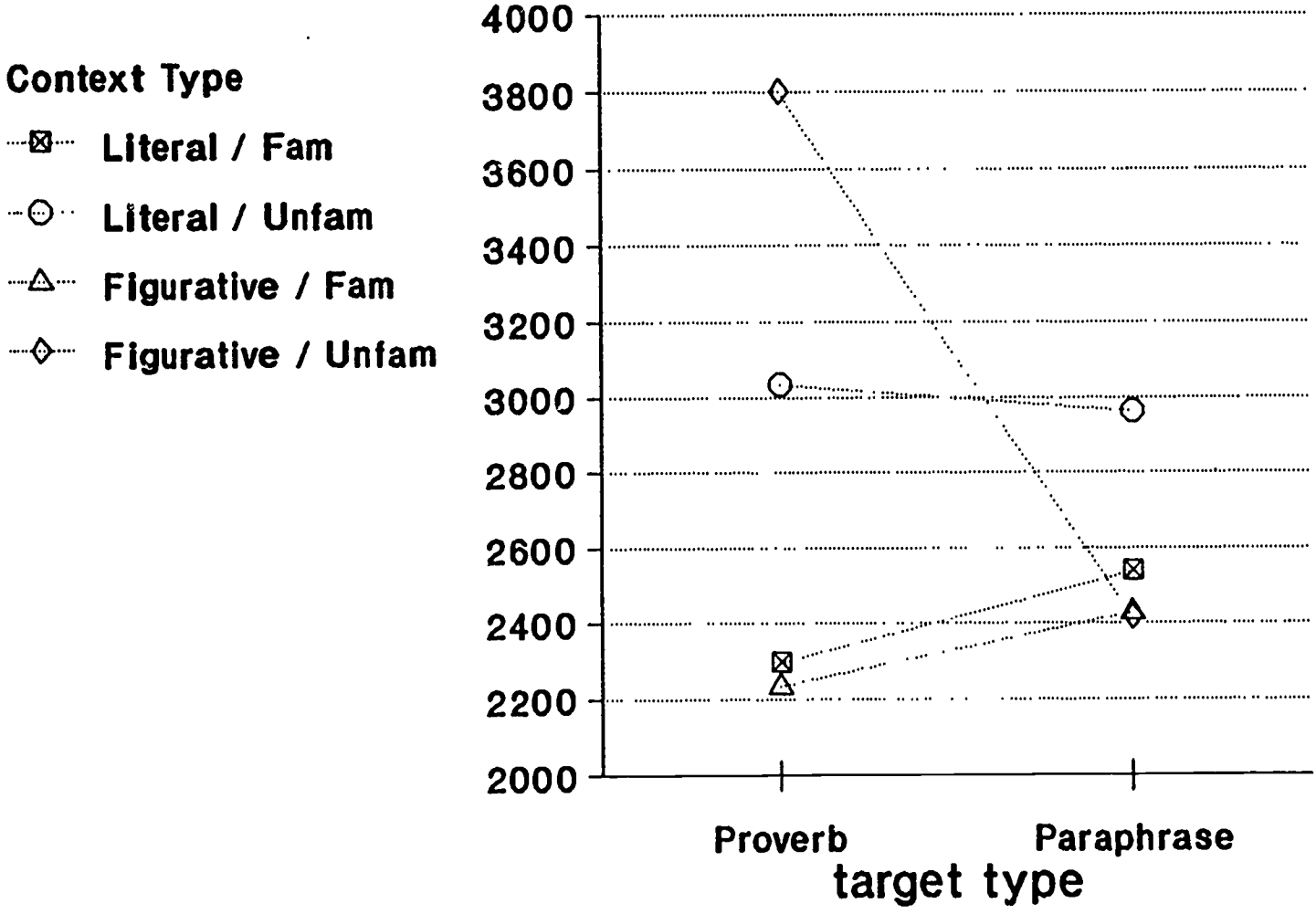


* = conventional use

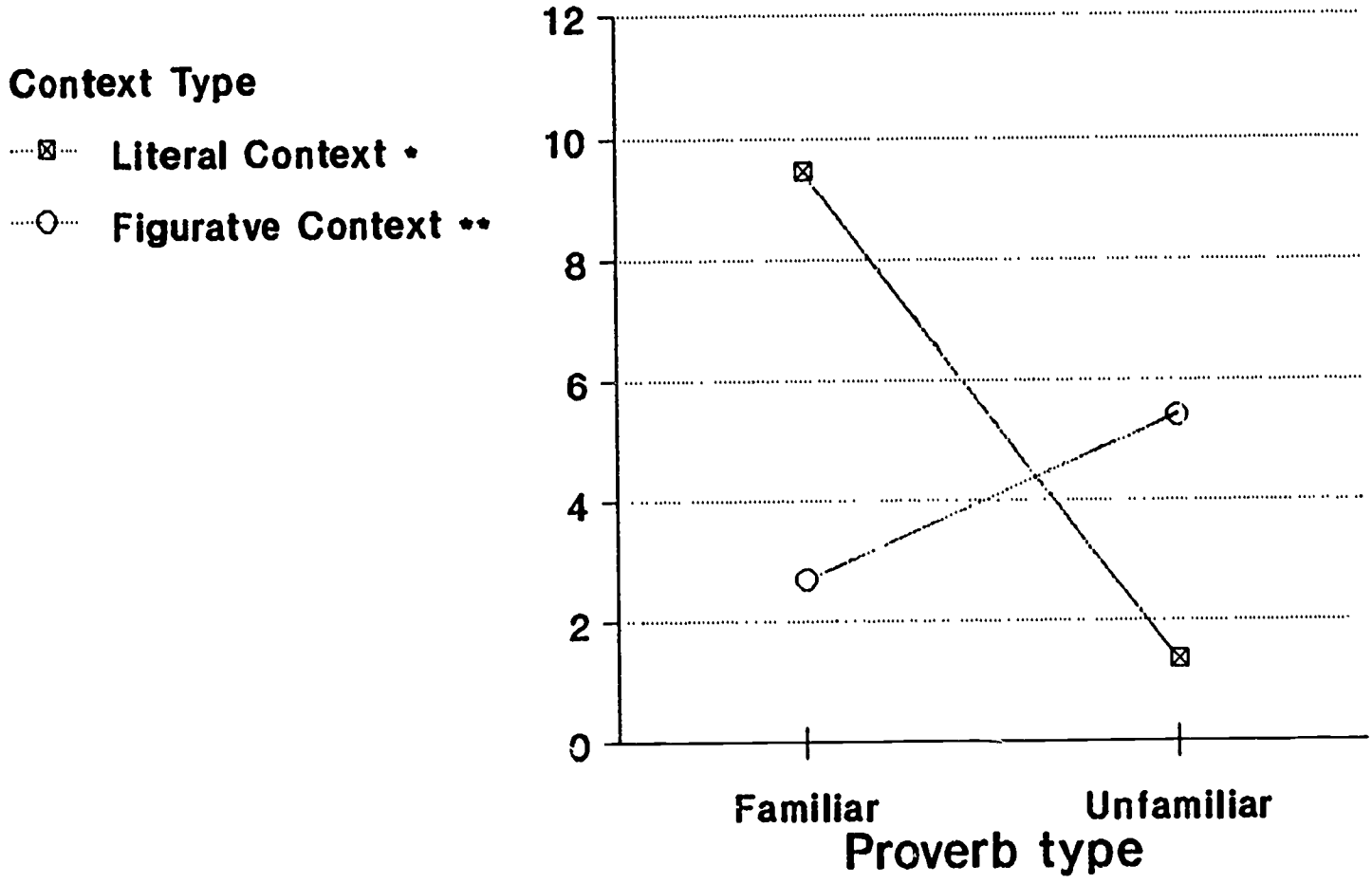
Processing Time Data (msec) for
Target Sentences in Study 1.



Processing Time Data (msec) for Target Sentences in Study 2.

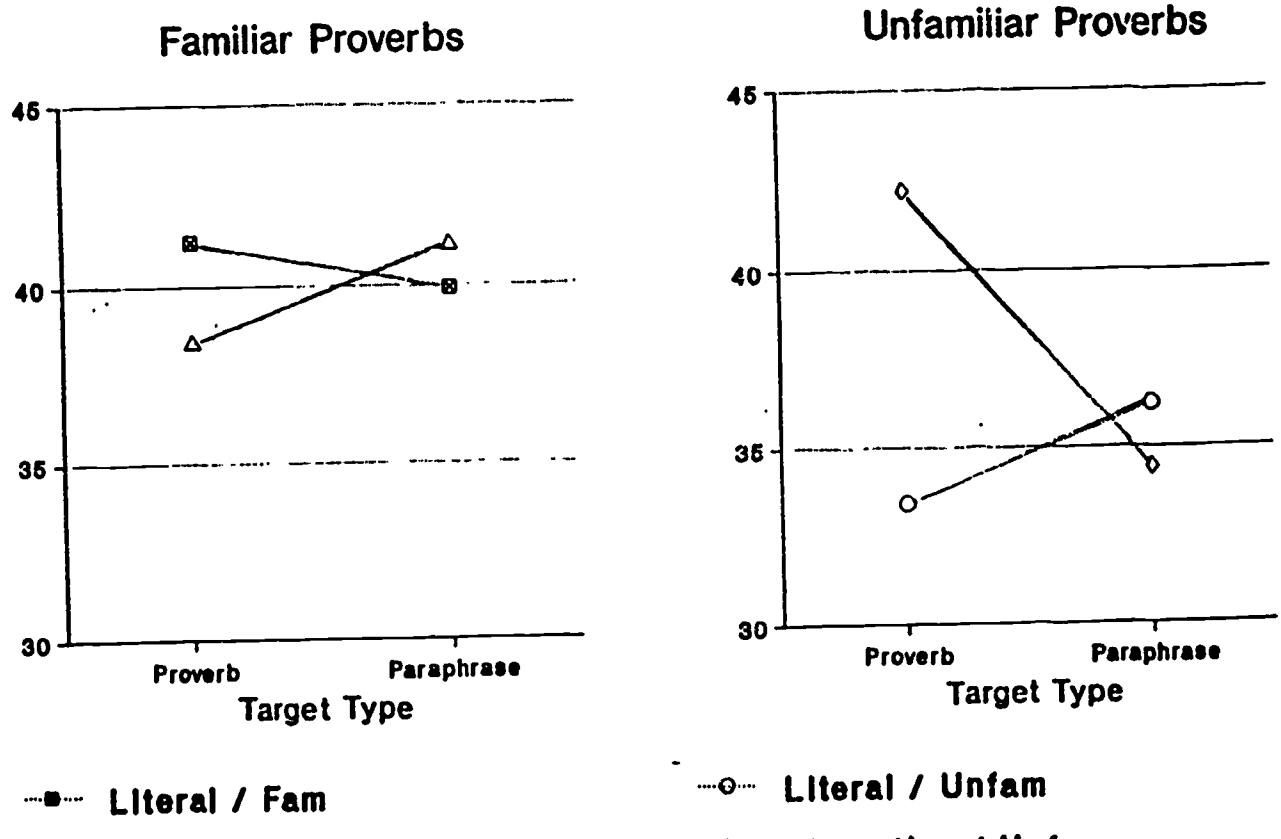


Context Inappropriate Interpretations for Proverbs (percent of all items).



* Figurative interpretations given
** Literal interpretations given

Percentage of Idea Units Recalled from Context for Items Correctly Recognized.



Note: percent of idea units represents number of units recalled divided by the number in the original paragraph.