

USAGE-BASED MODELS OF LANGUAGE

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Interpreting Usage: Construing the History of Dutch Causal Verbs

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1. Introduction

There is a famous epistolary novel in Dutch literature, *Sara Burgerhart*, written by Betje Wolff and Aagje Deken and first published in 1782, that is still being read not only in university by students of literary history but also in literature classes at schools (or at least some of them). It is possible for present day readers to understand most of the text without special training, even though several features of the language used are recognizably different from modern usage. One of these features is the use of *doen* as a causal verb. An example from this text is:

- (1) *Ja, ik heb u genoeg gezegd, om u te **doen** weten, dat ik u bemin...*
'Yes, I have said enough to you in order to make [lit.: do] you know that I love you'

Modern users of the language experience this use of *doen* as somehow strange, they would not use it in this context themselves, but rather prefer *laten*. But they have no problem in interpreting the sentence, specifically, they immediately understand that *doen* is used as a causal verb here. So for readers at the turn of the 21st century, there is simultaneously something familiar and something strange in the language of the 18th century novel, in this respect it is sufficiently familiar to allow understanding to proceed, but the motivation for use of (in this case) *doen* is not transparent. It is this somewhat paradoxical situation that constitutes the topic of this paper, both analytically and methodologically.

The occurrence of *doen* in older texts frequently gives rise to such experiences of strangeness without understanding being impossible. Speakers of Modern Standard Dutch therefore often remark that *doen* tends to sound 'old-fashioned' in contexts like (1). Such an intuition is usually couched in terms of a contrast between minimal pairs. Upon encountering a case like (1), one says "I would prefer *laten* over *doen* here," thereby constructing a minimal pair. At least one Dutch historical linguist (Dunhoven 1994) took this intuitive preference for *laten* over *doen* as the essential observation to be explained by an analysis of the history of *doen* and *laten*, and thus proposed a theory that analyzes it as the result of an actual historical process of *doen* being replaced as a causal verb by *laten*.

However, regardless of the details of this proposal, it should be kept in mind that minimal pairs are hardly ever encountered in actual language use, and that one therefore runs the risk of projecting present-day intuitions onto the historical developments. This is not to say that such intuitions are simply misguided, they are not, and it is a valid question how they might be explained. But in this paper I will try to show that an analysis that is explicitly based on an investigation of actual usage events, rather than intuition alone, is not only superior in empirical scope, but also theoretically more interesting, as it enables us to take dynamic relationships between meaning and context into account (in this case, as we shall see, mainly *cultural* context, but also narrative conventions), and thus to be explicit about the relationship between linguistic knowledge, such as knowledge of the meaning of the words *doen* and *laten*, and other kinds of knowledge.

2. The Semantics and Pragmatics of *doen* and *laten*: An Overview

The verbs *doen* (cognate of English *do*) and *laten* (cognate of *let*) have been in use as causal verbs since the oldest records of Dutch (early Middle Ages). Both take bare infinitival complements (without the infinitival marker *te*). At present, *laten* is much more frequent than *doen*, but (contrary to the suggestion in Duinhoven 1994), *doen* is definitely not generally obsolete; rather, there are particular types of contexts in which it is just the 'right' word to use. In fact, *doen* and *laten* exhibit a particular distribution relating to different types of causation. It is useful to see what the pattern of usage is and how it can be analyzed, before addressing the issue how the use of the verbs may actually have changed.

Consider the following two examples with *laten*:

- (2) *De agent liet hen passeren.*
'The officer let them pass.'
- (3) *De sergeant liet ons door de modder kruipen.*
'The sergeant had/made [lit.: let] us crawl through the mud.'

Note that the interpretation of *laten* ranges from permissive causation, as in (2), to coercive causation, which is the most natural reading for (3).¹ (See Talmy 1988, Kemmer and Verhagen 1994: 120, and specifically for Dutch, Verhagen and Kemmer 1997: 66-69, for arguments that permission is in fact a subtype of the general conceptual category of causation.) Other cases may be intermediate or neutral in this respect, such as:

- (4) *Zij liet de agent haar rijbewijs zien.*
'She showed [lit.: let see] the officer her driver's license.'

Some typical examples of causal *doen* are:

- (5) *De stralende zon doet de temperatuur oplopen.*
'The bright sun makes [lit.: does] the temperature rise.'

- (6) *CDA doet problemen 'paars' even vergeten* (newspaper headline)
 'The Christian Democratic Party makes [lit does] [one/people] briefly forget the problems of the purple coalition [i.e. the coalition of liberals and social democrats]'

In Verhagen and Kemmer (1997), it is argued that the difference between the two verbs in Modern Dutch can be well understood in terms of Talmy's (1988) theory of **force dynamics**. Croft (1991: 167) gives the following graphical 'summary' of Talmy's ideas

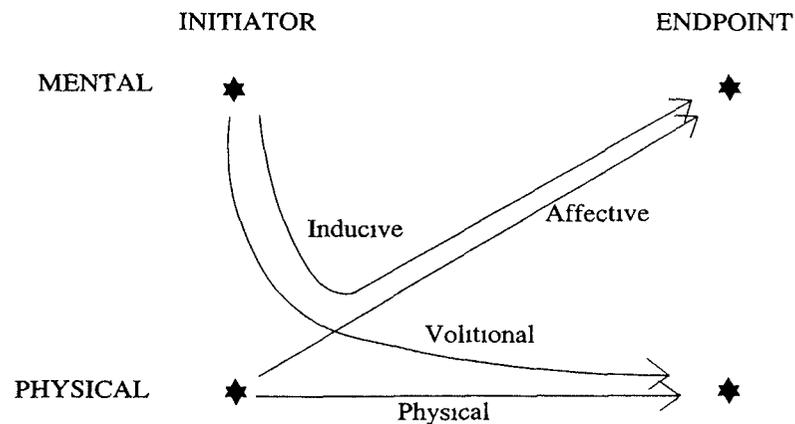


Figure 1 Asymmetries in Causation Type

Figure 1 captures the fact that people tend to distinguish different types of causation, depending on whether the situation they are talking about is conceived of as taking place in the physical or in the mental realm ('naïve dualism'). Causal relations in the physical world are conceived of as *direct*. They are governed by natural laws, and in an important sense inevitable (given the initiating force, there is no way that the result can be avoided). Causal relations in the mental world, on the other hand, are conceived of as *indirect*. The initiating forces are intentions, and they cannot produce the intended result completely on their own. In order to get another mind to change its cognitive state, one has to make a 'detour' via the physical world (there is no telepathy, hence the strongly bent top line in Figure 1). More-

over, at the endpoint of the causal relationship, the target-mind has its own somewhat autonomous contribution to make to the entire causal event; the force produced by the initiator is not in itself sufficient for producing the effect. Verhagen and Kemmer argue that it is precisely this distinction that underlies the difference in usage of *doen* and *laten*: By means of *doen* the event is categorized as one of "direct causation," while *laten* categorizes an event as one of "indirect causation," in the sense that some other force than the initiator's is more directly involved in producing the result.

So (2), (3), and (4) are all examples, despite the differences, of indirect causation; in particular, they are of the inductive type in Figure 1, i.e. events that in one way or another involve communication, with intentions on the part of the initiating person, and recognition on the part of the endpoint-person.² No such 'higher' mental states and processes are involved in instances of direct causation, which are marked by *doen*. Example (5), being a case of physical causation, provides a straightforward illustration. Example (6), taken from a newspaper headline, is especially interesting in that it does *not* mean that the Christian Democratic Party intentionally communicates to everybody that they should forget certain problems, despite the fact that a political party, i.e. a human institution, is easily conceived of as capable of intentionally performing activities. Rather, this sentence evokes the idea of the chaos within the Christian Democratic Party after their defeat in the latest elections had aroused so much interest that it automatically caused everybody to forget these problems. In other words: although the CDA, as a human institution, may well communicate messages to others, it is not depicted in that way in this type of event, marked with *doen*.³

3. Some Problems for a Diachronic Analysis

The fact that *doen* and *laten* differ semantically in the modern language does not, of course, in itself exclude the possibility that the use of *doen* is gradually decreasing over the centuries, as Duinhoven (1994) has suggested (cf. Section 1). And in fact, some general results of text counts seem to confirm this idea. A corpus was collected consisting of a relatively large number of instances of both *doen* and *laten* from the 18th, 19th, and 20th centuries, from similar kinds of texts; Table 1 gives the general *doen/laten* ratios in each of these three centuries. From these data, it is obvious that the relative frequency of *doen* has diminished over time.⁴

Century	<i>doen</i>	<i>laten</i>
18th	1.22	1.00
19th	1.03	1.00
20th	0.72	1.00

Table 1. Ratio of *doen/laten* over 3 Centuries
(frequency of *laten* in each century = 1.00)

However, some problems arise as soon as we look at some more details. The first complication becomes apparent when we consider not the *ratios* per century but the absolute frequencies in the same amount of text. Consider Table 2.⁵

Century	<i>doen</i>	<i>laten</i>
18th	89	73
19th	70	68
20th	44	61

Table 2. Absolute Numbers of *doen/laten* in Same Amount of Text

What this table shows is that the frequency of *doen* does indeed decrease over the years, but the frequency of *laten* does not *increase*. If the latter were replacing the former, it seems we would have to expect such an increase.

The second problem with the idea of *doen* becoming obsolete is that it predicts the decline of *doen* to be general, the idea being that *doen* would gradually become less suited to marking relationships of cause and effect (cf. Duinhoven 1994). But when we distinguish between different types of text in our corpus, there appear to be considerable differences, as a comparison of Tables 3 and 4 shows.

Century	<i>doen</i>	<i>laten</i>
18th	1.08	1.00
19th	1.00	1.00
20th	0.80	0.98

Table 3. Ratio of *doen/laten* over 3 Centuries in Fiction
(frequency of *laten* in 18th century = 1.00)

Century	<i>doen</i>	<i>laten</i>
18th	1.73	1.00
19th	0.92	0.36
20th	0.16	0.60

Table 4. Ratio of *doen/laten* over 3 Centuries in Non-Fiction
(frequency of *laten* in 18th century = 1.00)

There is a very striking difference here: While the use of *doen* in non-fiction texts diminishes dramatically between the 18th and the 20th centuries (according to Table 4 as much as 90%, in these data), the decrease in fictional texts is relatively minor (according to Table 3 about 25%). It appears then that different text types show different developments. Rather than a uniform, constant decrease of *doen* in the language in general, there seems to be a variable development. This phenomenon of diachronic variability, i.e. variability, through time, of the variation across context types, is especially relevant in view of the variation in the use of *doen* and *laten* that can be observed synchronically in the modern language. In a corpus of Modern Dutch,⁶ the *doen/laten*-ratio varies considerably over different genres, from .10 in weekly magazines, through .66 in popular science books and articles, to as much as 1.62 in the subcorpus of 'officialese' described in Renkema (1981). The latter subcorpus is actually the only one in which *doen* outnumbered *laten* (I will return to this point below).

In view of these observations, it seems plausible that the historical change, whatever its precise nature, will have affected different genres differently; it would be a change in a pattern of variation, which a straightforward one-factor analysis will probably not be able to account for.

Finally, this idea of diachronically 'variable variation' is confirmed by the fact that *doen* has not simply withdrawn from combinations with specific lexical items. Often, both *doen* and *laten* occur with a given verb in earlier periods as well as the present; but the proportion of *doen* and *laten* instances has shifted. For example, we as Dutch speakers have the intuition that we would rather have *laten* than *doen* in (1), but the combination *laten weten* is not absent from the 18th century material, as exemplified in (7):

- (7) *..en dewyl hij geen' tijd zou hebben, om een uurtje of anderhalf voor mij te vaceren, bad ik hem, naa de Synode...mij zulks te laten weten .* (Van Goens 1776-1777)

' . and since he would not have time to take my place for an hour or an hour and a half, I requested him ..to let me know [inform me] after the Synode. . '

In fact, the combination *doen weten* is still in use today; witness such examples as (8). Note that this case has actually been produced, and that here we don't have the intuition that *doen* should be replaced by *laten*. I give the full context, because it will turn out to be useful for understanding the use of *doen* here.

- (8) *Het zweet brak hem uit Hij rees omzichtig van zijn stoel. De barones reeg hem aan het harpoentje van haar ogen. Hij glimlachte geruststellend en begaf zich naar de gangdeur. In de hal liep hij naar de enige deur, die hij stellig van binnen zou mogen afsluiten. Met een zucht deed hij de buitenwereld weten dat het kleine vertrek bezet was, en hij zonk op de bril om na te denken.*

'He started to sweat He cautiously rose from his chair The baroness harpooned him with her eyes He smiled reassuringly and went to the passage door In the hall, he walked to the only door of which he was confident that he could lock it from the inside With a sigh he made [lit.. did] the outside world know that the small room was occupied, and sat down on the seat in order to think '

So the picture is rather complicated, empirically it comprises a number of observations of synchronic variation and apparent changes in the use of causal verbs, as well as a number of intuitions about actual instances: With many cases from older texts, present-day readers have an experience of strangeness and one of recognition simultaneously. Now, a good analysis should provide a resolution of this paradox, and it is in that sense that intuitions, viz those of contemporary as well as later interpreters of instances of use, form part of the empirical basis for an explanatory account To us as modern speakers of the language, certain aspects of the older texts are not

fully understandable, and we want a good analysis to improve our understanding. I will now present an analysis that satisfies this criterion.

4. Animacy and Authority

4.1 In Modern Standard Dutch

Recall the claim in Section 2 that *laten* marks indirect causation, and *doen* direct causation. Given the rather strict relation between (in)directness and the 'naive dualism' of Figure 1, there should be a clear correlation between the use of *doen* and *laten* and animacy. With *laten* we should find more animate causers than with *doen*. Consider Table 5, which contains some figures from Verhagen and Kemmer (1997).

	<i>laten</i> (n = 444)	<i>doen</i> (n = 130)
Causer animate	99%	42%
Causer inanimate	1%	58%

$$\chi^2 = 268.25, df=1, p < 0.001$$

Table 5. Distribution of Animate Causers in Causatives with Explicit Causees in the Eindhoven Corpus (± 1970)

The table gives the distribution of animacy in causative constructions in Modern Dutch that have an explicit causee. The correlation of *laten* with animacy of the causer is clear,⁷ as well as a correlation of *doen* with inanimacy of the causer. However, the latter correlation is weaker: 42% animate causers with *doen* is a considerable portion. Verhagen and Kemmer (1997) discuss several special cases in this set. One type consists of those instances where the description itself refers to an animate being, but its animacy is not relevant in the event (as in *Hij deed me aan mijn moeder denken*, which means 'He reminded me of my mother,' and refers to some observable characteristics or behavior of the subject; see also the discussion of (6) above). Example (8), as the context shows, denotes the sliding of the latch of the bathroom door, and the causee is not an actual human being, so that there is no actual communication, which is emphasized by the use of *doen* (cf. Verhagen and Kemmer 1997 for further discussion). In the present context,

some very interesting cases are those where the causer is God, as in (9), or where it is the government, as in (10)

- (9) *Zij smeekte Jezus, haar de goede weg te **doen** bewandelen*
 'She begged Jesus to make [lit do] her walk in the right path '
- (10) *De regering stelt zich voor deze herstructurering gefaseerd te **doen** plaatsvinden*
 'The government intends to have [lit do] this reorganization take place in stages '

The interesting thing about (9) is that the woman in question is not requesting Jesus to communicate with her, but rather to intervene in her mind directly (divine beings probably belonging to the small set of animate beings that can, in some cultures, be conceptualized as capable of influencing minds directly) In other words, the writer is categorizing the event here as in some sense involving direct causation, and this has the effect that the event is beyond the control of anyone else but Jesus

Something very similar is going on in (10) In actual fact it is hard to believe that the reorganization will take place independently of the cooperation of many other people besides those in government Still, the government is presenting the situation in precisely this way (this sentence was produced by a member of government in a message to the Dutch parliament) Again, the result of the event is presented as inevitable given the government's intentions, as beyond the control of anyone but the government (just as a physical result is conceived of as inevitable given the appropriate physical cause) So the use of *doen* is clearly motivated Especially in the latter type of cases, we see that authority of the causer can provide motivation for the use of *doen* activity from any other participant than the causer is essentially irrelevant for producing the result, so the causal event may be categorized as direct This provides us with an immediate and plausible explanation for the fact mentioned above that in the Eindhoven Corpus of Modern Dutch, the only subcorpus in which *doen* outnumbers *laten* is the one containing 'officialese,' i.e. texts from government officials and politicians in The Hague (Renkema 1981)

What this analysis first of all shows is that in order to explain actual usage of the same linguistic expressions in different contexts, we have to take into account how the simple, abstract models invoked by such words (here, *doen* and *laten*) are embedded in more complex, concrete models of

personal and social relationships, religion, etc Not all of this can be simply *predicted* from the abstract models invoked by the words, a model such as Talmy's, even though it provides a valid generalization over many cases, does not entail how it is to be applied to any particular situation Usage always involves specific speakers/writers, hearers/readers, at a specific time, in specific contexts, and since these influence production and understanding, facts of production and understanding do not in themselves relate immediately and unambiguously to the abstract models invoked by the words

We would therefore say that a usage-based model will rather naturally take the form of some sort of constraint-satisfaction model From the perspective of language production, in the cases just discussed animacy of the causer is an inhibitive factor for the use of *doen*, but authority or divinity may be activating factors for *doen* Other factors of the context may also come into play, in particular the evaluation of the relevant aspects of the situation by the speaker In some situations then, 'authority' may be stronger than 'animacy,' resulting in *doen* being used⁸ From an interpretive perspective, the use of *doen* is itself a constraint on the interpretation of the utterance, and may contribute, together with other factors, to an interpretation of the causer as inanimate in one case, or to the result being presented as inevitable in another Thus a linguistic expression may have a constant 'weight,' i.e. a constant contribution to make to the communicative event, while the ultimate interpretation is always dependent on some sort of weighted sum of *all* constraints in the event A single communicative event therefore never really provides conclusive evidence for the nature of what is contributed by one of its elements This is precisely the reason why investigation of a diversity of actual usage events is important for this kind of theoretical position In other words A usage-based view should comprise a theoretical position as well as a methodology that 'fits' it

4.2 Over the Last Three Centuries

Given the above view of the way the actual use of linguistic elements may relate in complex ways to contextual factors, a specific hypothesis on the historical development of *doen* and *laten* suggests itself If it is true that features such as 'authority,' 'communication,' and 'inevitability' may provide motivation for the use of the causal verbs, then perhaps it is these factors of which the weight has changed over time, thus providing a (partial) explanation for the observed changes in usage Specifically, the relative weights of

'authority' (favoring *doen*) and 'communication' (favoring *laten*) may have been different in the past, possibly in a way that could help explain the observed decrease of *doen*. Since these factors are particularly relevant in the case of events with animate causers, we should start by looking at details of any changes in the frequency of causers with *doen*.. Table 6 summarizes the relevant primary frequency data for the texts collected:

	18th	19th	20th
Causer animate	57%	47%	20%
Causer inanimate	40%	52%	80%
Indeterminate (absent)	3%	1%	

$$\chi^2 = 26.44, df=4, p < 0.001$$

Table 6. Animacy of Causers with *doen* over 3 Centuries
(n = 75 for each century)

It is clear from the table that there is a general tendency: The proportion of animate causers with *doen* has decreased quite dramatically. Whereas animate causers occurred with 57% of the *doen*-cases in this corpus in the 18th century, this becomes a minority of 47% in the 19th century, and a still smaller minority of 20% in the 20th. Now, of the factors mentioned above, the most plausible one to have changed much over the last three centuries is that of authority: We already know from all kinds of sources that 200 years ago, authority was a much more important determinant of social and personal relationships, or at least of their evaluation, than it is today. It is not difficult to find examples in 18th century texts like the following:

(11) *ik heb Tante...zo wel eens **doen** zien, dat haar manier van doen zeer dikwyls verbaast verre afweek van hare wyze van zeggen.* (Wolff and Deken 1782)

'I showed [lit.: did see] Aunt every so often...that what she did frequently differed amazingly from what she said'

(12) *...en ik [=Sophia Willis] poogde myn kinderen te **doen** begrypen, dat zy óók genoeg zouden hebben, indien zy hun begeerten vroeg leerden beteugelen.* (Wolff and Deken 1782)

'...and I tried to make [lit.: do] my children understand that they would also be satisfied if they learned to control their desires early.'

(13) *...dog dat Sijn Hoogheydt nogtans in dese wel gedaan hadde, omme alvorens sijn opstel aan de Raidpensionaris te **doen** zien.* (Van Hardenbroek 1782)⁹

'...but that His Highness had nevertheless done well in this case, in first showing [lit.: to do see] his document to the Counsellor.'

In (11) there is a relationship of authority (at least) because the *I* has been appointed executor of a last will that imposes certain obligations on the *Aunt*; (12) is a case of a parent-children relation, and in (13) the causer is a king, and the causee a counsellor. Such causers will be termed **institutional authorities**: persons for whom it is clear in the immediate context that they have some authority by virtue of a specific institutional role such as being a sovereign, a military official of high rank, or an expert with respect to the process involved, like a doctor in the case of medical treatment. By counting such cases, we may get some indication whether the decrease in the relative frequency of animate causers with *doen* may be attributed to a decrease in the importance of authority as a factor in categorizing causal events.

Now in order to get a good picture of possible developments in actual usage, we have to look, not so much at percentages of uses in each century, but rather at the figures for animacy and authority in equal amounts of text: It is only by looking at absolute frequencies that we can see if the factor considered may also explain (part of) the *general* decrease of the use of *doen* that has been observed.

The results are summarized in Table 7 below. Column 1 gives the numbers of animate causers, column 2 the numbers of these that are also institutional authorities, and column 3 gives the numbers of inanimate causers.¹⁰

	Animate		Inanimate
	Causers	Authorities	Causers
18th century			
<i>doen</i>	54	40	35
<i>laten</i>	68	23	5
19th century			
<i>doen</i>	33	9	37
<i>laten</i>	54	15	4
20th century			
<i>doen</i>	10	4	34
<i>laten</i>	53	6	8

Table 7 Animacy and Authority over 3 Centuries, in Equal Amounts of Text

Clearly, the most striking tendency to be noted here is that the frequency of institutional authorities as causers decreases drastically over the three centuries *in general*, independently of the choice of causal verb. Secondly, this tendency appears to have a special effect on the frequency of *doen* but not that of *laten*. This can be explained on the assumption that ‘authority’ is a (positive) motivating factor for *doen*, but not (a positive or negative one) for *laten*. So it seems that the diminishing role of authority in the texts is a major factor in the decrease of *doen*, and one that is also part of a general cultural development. Authority has become a far less important aspect of our models of interpersonal relations (if not of these relations themselves). Due to the importance of authority in interpersonal relationships in the 18th century, situations caused by humans which invited the inference that the outcome depended only on the causer were common, due to changes in the cultural view of personal relationships, such inferences have apparently become much more unusual.

Another notable conclusion to be drawn from these data is that there has been no *general* decrease in the use of *doen*, but only in specific combinations. There is clearly an asymmetry between the categories in Table 7. The use of *doen* with inanimate causers is strikingly stable over the three centuries (the top rows for each century in column 3), contrary to its use with animate causers (column 1). The latter component, in fact, seems to be fully responsible for the observed overall decrease of the use of *doen*. Therefore, any purported explanation of the change in terms of *doen* becoming gradu-

ally less suitable for expressing causation has a very serious problem here. What appears to have happened is mainly that it is far less normal now than in the 18th century to depict a situation of communication between people as involving so much authority on the part of the causer that the result could be regarded as inevitable. In fact, as the table shows, the role of the feature ‘authority’ in the texts has diminished overall, and the decrease in the frequency of *doen* simply parallels this.¹¹

Now this explanation presupposes that in a general sense, the function of *doen* has not changed. When we conceive of the conceptual content of a linguistic element as a network of senses—prototypes and extensions, and schemas generalizing over these—in the sense of Langacker (1988), then we can say that the most general schema of *doen* has not changed. *Doen* still has ‘directness of causation’ as its conceptual content, and this captures the fact that it is produced less often with animates now than it used to be, given apparent and in fact well-known changes in our cultural values concerning authority, if not in the actual role of authority in society. On the other hand, a change may be claimed for some more specific levels in the network, where it is connected to cognitive models like those of interpersonal relationships, God, and perhaps others like these. As far as one wants to call it a change in the language, it is actually indistinguishable from the change in the culture.¹²

This situation is strongly reminiscent of the characterization of cultural knowledge by D’Andrade (1987). D’Andrade points out that there are hierarchical relationships between cognitive models in a culture, the “folk model of the mind” (laying out what kinds of mental states and processes there are, how they are caused, what is intentional and what is not, etc.) is an abstract model that enters into a number of other more complex and more specific models of activities like buying and selling. Now to know a culture is not just to know a relatively large number of its essential models, it is to know a network of hierarchically related models, and especially to know the models that enter into many other models in that culture (D’Andrade 1987: 112). Knowledge of the meaning of *doen* appears to be just another example of this situation, so that changes in certain specific parts of the network of models with which *doen* is connected, do not necessarily change the general abstract content of this meaning.

So the kind of evidence that I have presented, which can only be produced by investigating actual usage, is very powerful in that it has a specific *theoretical* implication. Accounting for actual usage requires a view of cog-

nitive models of different degrees of abstractness as hierarchically related and strongly interacting. Knowing the language in the sense of being able to use it properly includes knowing these more specific models too, and is therefore inextricably intertwined with knowing the culture.

5. Interpreting Usage on a Micro-Level

The force of the specific argument just presented largely rests on the parallelism for the case of *doen* in the columns of animacy (1) and authority (2) in Table 7, and the asymmetry between these two and the column of inanimacy (3). The argument would be strongly reinforced if the analysis also provides the conceptual instruments to make sense of particular cases that are not directly accounted for in terms of the correlation that the table presents. In this section, I would like to present two examples of this kind.

5.1 Gender

The first special case is related to the fact that in order to assign a causer to the category ‘authority’ for Table 7, it was required, as indicated in Section 4.2, that there was independent evidence for this status in the text—that is how “institutional authority” was defined. But authority might also be relevant in other ways than these. In particular, difference in gender was not used as an indication of authority in the relationship. However, we know that in the 18th century there was a tremendous asymmetry in gender roles and a corresponding difference in balance of authority and power. More specifically, a major moral point of the famous novel *Sara Burgerhart*, which is the source of a large part of the 18th century data collected, is precisely that the proper relationship between man and wife is one of authority (not unambiguously so, for in certain areas wives were considered experts, but the general pattern is clear enough). This raises the question of which causal verbs were used in the description of communication between men and women. There are not that many instances in my data,¹³ but the distribution is nevertheless striking.

Let us consider some examples: (14) and (15) have male causers and female causees, and they have *doen*; in (16) and (17) causers and causees are of the same sex, and these have *laten*.

- (14) *Ja, ik heb u genoeg gezegd, om u te doen weten, dat ik u be-min...*
‘Yes, I have said enough to you in order to make [lit.: do] you know that I love you...’ [causer male, causee female]
- (15) *Gy [=Jacob Brunier] voldeed uw zeven Dames; gy kon om snuif en tandpoeders denken...en ons tevens in uw nieuwe denkbeelden doen delen.* (Wolff and Deken 1782)
‘You satisfied your seven Ladies; you were able to think of snuff and tooth powders...and also have us share your new ideas.’ [causer male, causee female]
- (16) *...en dewijl hij geen’ tijd zou hebben, om een uurje of anderhalf voor mij te vaceren, bad ik hem, naa de Synode...mij zulks te laten weten...*
‘...and since he would not have time to take my place for an hour or an hour and a half, I requested him...to let me know [inform me] after the Synod...’ [causer and causee both male]
- (17) *...ik [=Sara] was dus zeer in verzoeking om aan Letjes naaister, Madame Montmartin, zo half en half te laten merken, dat ik in het laatste geval was...*
‘...I was thus very much tempted to more or less let Letje’s dressmaker, Mrs. Montmartin, notice that I was in this kind of situation...’ [causer and causee both female]

The distribution in the whole set of 14 cases is shown in Table 8:

	<i>doen</i> (n = 8)	<i>laten</i> (n = 6)
Female Causer		
Female Causee	0	3
Male Causee	1	0
Male Causer		
Female Causee	6	0
Male Causee	1	3

Table 8. Gender and Causatives in the 18th Century

All six cases of *laten* involve same-gender communication. On the other hand, in six out of eight cases of *doen* a male communicates something to a

female. So even though the number of instances is not very large, the pattern is very suggestive: apparently males ‘made’ (or ‘had’) females know things, whereas both males and females among themselves ‘let’ each other know things.

Only one instance shows the reverse pattern; example (18) has a female causer and a male causee:

- (18) *Indien er iets mocht voorvallen, 't geen u nodig schynt my te doen weten, zo verzoek ik u ernstig om my met uwe brieven te verëeren.*
 ‘If ever something might happen that seems to you necessary to tell [lit.: do know] me, I sincerely request you to honor me with your letters.’

In fact, however, even this case can be seen to support the analysis. Notice that the clause with the causal event is embedded under *request*. And the requester is male, the ‘requestee’ is female. Thus it is the male who himself puts the female in a position of authority, so to speak, and there is abundant evidence in the text, including this sentence (‘sincerely request,’ ‘honor me’), that this particular man is eager to show a lot of respect towards this particular woman. In other words, the use of *doen* here is very polite, just as the use of a formal form of address by a superior towards a subordinate is polite.

5.2 Subjectivity

The second special case I would like to consider is the discrepancy between fiction and non-fiction noted in Section 3. As Tables 3 and 4 showed, the frequency of *doen* decreased much more in non-fiction than in fiction. The figures are extracted and represented in Table 9.

Century	Fiction	Non-fiction
18th	1.08	1.73
20th	0.80	0.16

Table 9. From Tables 3-4: Ratios of *doen* (relative to *laten*) in 18th vs. 20th Century

In fiction, the relative frequency of *doen* (taking the frequency of *laten* in the 18th century as 1.00) went from 1.08 to .80; in non-fiction it went from 1.73 to .16. In terms of the types of causation proposed by Talmy (as depicted in Figure 1), we know from Section 4.2 that the use of *doen* with inductive causation, i.e. with animate causers, decreased drastically. Consequently, the natural question to ask is whether there could be a reason for a difference between fiction and non-fiction in the domain of affective causation, i.e. causation with an inanimate cause and a mental effect.

Consider what a conceptualizer, reader or writer, or whoever is construing the description of the event, knows when s/he reports such a type of causation: The conceptualizer is effectively reporting from the causee’s mind. Saying something of the type ‘Such and such *made X realize* so and so,’ creates an internal, personalized perspective for one particular character. So this type of causation can be reported by narrators who have the power to look inside a character’s head. Some typical examples from the 20th century texts in the data are the following:

- (19) *Eerst waren het angst en pijn die hem huilen deden...*
 ‘At first it was fear and pain that made [lit.: did] him cry...’
- (20) *...zij [=zijn herinneringen] kwamen hem 's avonds gezelschap houden en deden hem lachen of somber voor zich uit staren.*
 ‘...they [=his memories] came at night to keep him company and made [lit.: did] him laugh, or gloomily stare in front of him.’
- (21) *Een poort naar niets en voor niemand, in geen enkel opzicht geschikt haar een gevoel van triomf te bezorgen, of te doen denken dat hij alleen voor haar gebouwd was.*
 ‘A gate to nothing and for nobody, in no way fit for giving her a feeling of triumph, or for making [lit.: doing] her think that it had been built just for her.’

Such sentences are recognizably narrative. Besides the internal perspective created by the (affective) causal predicates, they contain expressions denoting subjective experiences, such as *angst* (“fear”), *herinneringen* (“memories”), *somber* (“gloomily”), *gevoel bezorgen* (“give a feeling”). But even without such additional indications of subjectivity, causative sentences of this type do not fit in a purely objective report; for example, consider (22), taken from a newspaper article on a Labor Party congress:

(22) *Een blik op de voorste rij, waar zijn voorgangers gezeten waren, deed de nieuwe PvdA-voorzitter beseffen dat hij het niet gemakkelijk zou krijgen.*

'A glance at the first row, where his predecessors were seated, made [lit.: did] the new Labor Party president realize that his job was not going to be easy.'

When reading this, we immediately know that we are not on the front page of the newspaper, where the 'hard facts' of the news are presented, but in a story providing background to a more objective report given elsewhere. In such background 'human-interest' stories, personal involvement is allowable. It seems clear that the chance of this type of causation occurring is larger in fiction than in non-fiction. We furthermore know that this kind of subjectivity (a character's subjectivity, rather than speaker's subjectivity, cf. Sanders 1994:24-5), though definitely not a modern invention, has become very prominent in literary narrative especially since the rise of the modern novel.

Now consider Table 10; it gives figures indicating the numbers (in terms of the normalized frequencies of Tables 3-4) of *doen* that entail an internal perspective (as indicated by an experiential complement verb).

	<i>doen</i>	Internal Perspective
Fiction		
18th century	1.08	.26 (24%)
20th century	0.80	.37 (46%)
Non-fiction		
18th century	1.73	.14 (8%)
20th century	0.16	.04 (24%)

Table 10. Frequency of *doen* with Internal Perspective

We see another asymmetry here: In terms of percentages, *doen* with implied internal perspective is increasing both in fiction and in non-fiction, but much more so in fiction, and, more importantly, it is only in the fiction part of this corpus that the actual number of this kind of events increases. In these data, almost half of the *doen*-instances in modern fiction are accounted

for by this specific type of affective causation. The claim seems justified, then, that the increase of subjective internal perspectives in modern literary fiction is at least partly responsible for the fact that in this type of text, the frequency of causal *doen* has not diminished to the same extent as in other text types; in narratives the decrease of *doen* with animate causers is partly compensated, as it were, by an increase of *doen* with an implied personal perspective. Again, it becomes evident that an account of actual usage must take into account specific details of the conceptual network connected to a linguistic element.

6. Conclusions

Theoretically and descriptively, the first conclusion is, of course, that in a *general* sense the meaning of *doen* in Dutch has not changed essentially over the last 300 years (and probably not even over a longer period; cf. Note 1). What has changed are cultural conceptions of the role of authority and gender in causal events, and also cultural practices of (subjective) narration. By the same token, however, it has become clear that the use of the word is connected in particular ways to other cognitive models; in a usage-based network conception of the meaning of *doen*, this implies that details of the network did change over time (and consequently, if we equate the meaning with the entire network, the meaning of the word itself has changed). Knowing how to use the word (a criterion for knowing its meaning) and knowing how to behave in one's culture turn out to be indistinguishable notions.

Methodologically, one important point to note is that a theoretical conclusion of this type is in fact strongly dependent on investigation of a variety of actual usage events, including their contexts. Acceptability, useful as it may be, could not have provided the evidence that is the basis for this insight into these relations between knowledge of language and knowledge of culture, including the historical relations.

Finally, we have in fact resolved the paradox noted at the end of Section 3, where it was noted that we, as 20th century interpreters, experience both familiarity and strangeness with respect to a number of instances of causal *doen* in older texts. We are now in a position to see the motivation for its use, which means that we are now in a position to integrate the 'strange' cases into one coherent story with other cases, including modern ones. The analysis allows us, now, to assign a coherent interpretation to certain fea-

tures of older texts, one which is furthermore coherent with the way we Dutch speakers interpret present-day usage events, in a way, we have extended *our* network for *doen*, so as to include a substantial set of older cases. So this particular empirical problem, involving a certain kind of intuition, has been solved by means of this analysis. This fact both supports the analysis, and shows that intuitions about actual usage events may be an integral part of a usage-based approach.

Notes

- 1 It is generally assumed that permission is the original meaning of *laten*, the causative uses being derived later. If that is correct, the change must definitely have occurred before the period considered here. The data in Landré (1993) clearly indicate that the whole range from permissive to causative uses of *laten* is present in the same way in 18th as well as 20th century Dutch. As for older periods, the Middle Dutch Dictionary (Verwijs and Verdam 1885-1952) also lists causative besides permissive uses of *laten* in the Middle Ages (of Old Dutch hardly anything remains). Interestingly, Verwijs and Verdam state the following concerning Middle Dutch: “*Laten* expresses more the passive, and *doen* more the active type of causation, but sometimes this difference is hardly noticeable. Compare new Dutch *doen weten* and *laten weten*” (Middle Dutch Dictionary IV 184, my translation). It seems that *laten*, at least in combination with an infinitival complement, but probably also in other uses, can be used both for the specific concept “permission” and for its ‘superordinate’ “indirect causation”. It is well known that this type of semantic shift is quite common, but more detailed evidence is required for the claim that it has occurred in the actual history of Dutch *laten*. In view of the available evidence so far, it might also be the case that this polysemy has been a stable property of the semantic structure of *laten* for an extended period of time.
- 2 Instances of volitional causation as meant in Figure 1 are situations of humans acting on the physical world, i.e. of making or allowing natural forces to change things. In several of these cases, *laten* is used (in situations of ‘letting something fall,’ or ‘letting the bathwater flow away’), indicating that the relation between the initiating force and the result is conceived of as indirect. In other cases *doen* is used, especially to mark the non-communicative aspect of a situation (cf. example (6)), see Verhagen and Kemmer (1997), for further discussion.
- 3 In fact, it is a kind of affective causation as meant in Figure 1; a general subtype of such events are perceptions (cause in the physical world, effect in the mental world), which are, in the ‘folk model of the mind’ (D’Andrade 1987) thought of as directly caused by the outside world, and not controllable; hence these are also marked by *doen*. I will return to this specific subtype in Section 5.2.
- 4 The initial description of the data to be discussed is given in Landré (1993). I want to thank Nienke Landré for her help in the collection and initial classification of these data.
- 5 Normalized to frequencies per 120,000 words; 2/3 fiction, 1/3 non-fiction. This amount was mostly sufficient to get a corpus with 75 instances of each causal verb for each century. This number seemed reasonable for an investigation of possible developments in the distribution of different kinds of noun phrases in both types of causative constructions (cf. Sections 4.2 and 5). In some cases, less or more than this amount of text was searched, especially for *doen*—hence the normalization. Another manipulation of the data was that all cases of *laten zien* (‘let see,’ = ‘show’) were ultimately left out: especially for the recent periods, this specific combination vastly outnumbers the others, to a degree that would have made any comparison highly problematic. A disadvantage of this decision is, of course, that the data no longer allow for immediate comparison with other corpora, especially the Eindhoven Corpus of Modern Dutch. As we will see below, however, it is possible to extract certain trends from the data and to compare these with the independently established trends in certain other corpora.
- 6 The Eindhoven Corpus in the version that is available at the Free University of Amsterdam. It contains language data from the early 1970s (cf. uit den Boogaart 1975, and also Renkema 1981).
- 7 In causeless causatives with *laten* the portion of inanimate causers is not so extremely small as in the subset for which Table 5 gives the relative distribution. Their greater frequency in causeless causatives seems to be mainly due to constructions with reflexives, of the type *De cassette laat zich gemakkelijk inbrengen* [lit.: The cassette lets itself insert easily], meaning ‘The cassette may be inserted easily.’
- 8 Note that this does not alter the fact that ‘animacy’ as such is still an inhibiting factor for *doen*. In other words, this constraint-satisfaction approach allows us to state that the meaning of *doen* is not changed by

the mere fact that it is being used with an animate subject NP. See Verhagen (1997) for a more general discussion.

- 9 Note the preposition *aan* marking the causee in this case. This does not occur with causative *doen* in Modern Dutch, for which an explanation has been proposed in Verhagen and Kemmer (1997). According to that analysis, the usage of the dative-like marking implies relative autonomy of the causee, which is compatible with *laten*, but not with *doen*. Cases having *aan* are therefore predicted to be among the first to have lost the possibility of *doen*, since their specifications are least compatible with the increasing preference for use of *doen* with non-animate, non-autonomous causees.
- 10 Note that the figures for the 20th century in Table 7 exhibit the same tendencies as observed in the Eindhoven Corpus (cf. Table 5), but that they do not match exactly. In terms of percentages, the skewing of *doen* and animate/inanimate is 23/77 here, vs. 42/58 in Table 5, with *laten* the ratios are 87/13 and 99/1, respectively. The differences are due to at least the following factors. First, the Eindhoven Corpus contains a sub-corpus of formal political texts ('officialese'), which, as pointed out above, is the only one in which *doen* outnumbers *laten*, this is an important factor in the differences involving *doen*. Second, Table 5 is based on a comparison of (in)animacy of causers and causees (cf. Verhagen and Kemmer 1997). The consequence is that Table 5, unlike Table 7, only concerns cases with an explicit causee, thus excluding such cases as *De acta van het concilie laten duidelijk zien dat* ('The council's proceedings clearly show [lit. let see] that'), and *De cassette laat zich gemakkelijk inbrengen* (lit. The cassette lets itself insert easily, 'The cassette may be inserted easily'). The inclusion of such cases in the data for Table 7 appears to be the main factor responsible for the differences with *laten*. Finally, the present data contain a relatively larger portion of fiction, and this produces some special effects as well, particularly for *doen* (cf. Table 3, and the discussion in Section 5.2).
- 11 I wish to thank Huub van den Bergh for his help in laying out the relation between the data, as presented in the table, and the conceptual content of the analysis. The difference between the 18th and the 20th centuries is in full accordance with the hypothesis proposed here, because there is an almost exact parallel between the two centuries in the ratio of animacy with *doen* to that of authority. The data from the 19th century do not fit the hypothesis completely: the figures in the column 'animate' do not decrease as much (with respect to the 18th century) as

those in the column 'authority'. Several factors could be responsible for this 'anomaly'. One possibility is the artificiality of the boundaries between the periods, another, perhaps more interesting one is that 19th century texts show less independent evidence for 'authority,' while this feature actually still played an important role in the writers' and (intended) readers' views of causality.

- 12 This network conception of the meaning of *doen* is discussed in more detail in Verhagen (1998).
- 13 In order to be relevant for this particular count, it was necessary that the sex of both causer and causee could be established unambiguously. Many cases of interpersonal causation contained at least one indefinite or plural participant, for whom sex could not be determined, and these were therefore excluded from the count. Hence the relatively small number of cases in Table 8.

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