

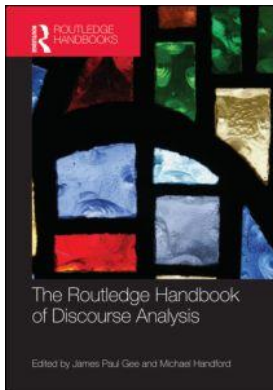
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### From thoughts to sounds

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# From thoughts to sounds

Wallace Chafe

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A fundamental property of language is its ability to associate thoughts with sounds. Those who are producing language are experiencing thoughts. Those thoughts are somehow associated with sounds that pass through the air and strike the ears of listeners, whose brains then interpret the sounds with thoughts that partially resemble those of the speaker, or at least take some account of the speaker's thoughts. The resemblance can never be more than partial, because the contents of different minds are inevitably very different. New thoughts entering someone's mind are always interpreted in terms of thoughts that are already there. But language at least permits separate individuals to know something of each others' thoughts, whatever use they make of such knowledge.

## Stages from thoughts to sounds

The first thing to notice is that thoughts and sounds are very different in nature, so it is impossible for them to be in any one-to-one correspondence. Thoughts pass through several stages of filtering and adjustment before a representation in sounds is achieved. Those stages can be described in terms of a progression from thoughts to a semantic structure, from a semantic structure to a syntactic structure, and then to phonology and sounds. I will focus here on reasons why the path from thoughts to sounds involves both a semantic and a syntactic organization.

These stages are by no means self-contained. Thoughts are already shaped in major ways by language, and especially by a language's semantic structuring. Semantic structures and syntactic structures also have much in common. Ultimately we would like to know what the *brain* is doing, and certainly it does not assign these stages to isolated modules. Nevertheless, it is useful up to a point to discuss thoughts, semantic structures, and syntactic structures separately, since each has its own properties and its own reasons for existence.

There is an important sense in which thoughts are where the action is. The flow of language is determined by the flow of thoughts, which constitute the force that drives language forward. Semantics, syntax, and ultimately sounds exist in service to the thoughts. Linguists who focus their attention on syntax may pretend that syntax is the creative, driving force of language, but that cannot possibly be true. Speakers and listeners are primarily, if not exclusively, conscious of the flow of their thoughts. If one hears a language that is unfamiliar, one can only be conscious of its sounds; but that is not the way language functions. The biggest step in learning a new language is to acquire the ability to experience thoughts while hearing sounds, largely ignoring the sounds themselves. The discussion here will proceed from thoughts to semantic structures to

syntactic structures, asking why the latter two stages exist and why sounds cannot be associated with thoughts directly.

Linguists have seldom given thoughts the attention they deserve. The reason is clear. Sounds have physical properties that anyone can observe, whereas thoughts can be observed directly only by the thinker. Thoughts are “subjective” rather than “objective.” If one’s goal is to be “scientific,” one may find it necessary to remain safely with phenomena that are publicly observable. That can be a hindrance, however, if thoughts have the priority just described. We need to deal with them in spite of their subjectivity, and language can help.

How, then, can we learn more about thoughts? It seems that there are at least three general pathways that can and have been followed. One is introspection, another language, and a third experimentation. Systematic introspection was more popular in the nineteenth century than in the twentieth, when behaviorism, logical positivism, and other philosophical trends saw introspection as next to useless. Properties of thoughts were discussed insightfully by William James in his *Principles of Psychology* (1890), but the twentieth century turned its attention elsewhere. It was an unfortunate development, because introspection can tell us important things about thoughts, a few of which will be mentioned here. The focus here, however, will be on ways we can learn about thoughts through language. The third pathway, experimentation, may offer greater objectivity, but usually it suffers from the artificiality of experimental data. In the end, the best insights should come from combining introspection, language, and experimentation in order to expand the total picture from multiple directions.

Introspection suggests that thoughts have perceptual, evaluative, and verbal components. Perceptual experiences enter thoughts, directly or indirectly, through the senses. They fall into two major subclasses. First, there are immediate experiences derived from seeing, hearing, touching, tasting, and smelling aspects of the immediate environment—whatever is present at the very time and place of those experiences. But many perception-based thoughts are displaced, appearing in consciousness as imagery, a kind of attenuated perception. Thoughts of that kind may result from past contacts with some immediate environment, in which case we say they are remembered, or they may be more or less invented by our minds, in which case we say they are imagined. There is no sharp division between remembering and imagining. Memories are to some extent imaginatively constructed, and imagination depends heavily on remembered experiences. The general point is that thoughts consist in part of experiences that are perception-based. Thoughts also exhibit an evaluative component. We experience emotions, attitudes, and moods, to which I will return at the end of this discussion. The third component of thoughts that is introspectively obvious is inner language. We are conscious of talking silently to ourselves. More is involved than just auditory imagery. Sounds constitute part of this inner language, but we also experience language-based ways of organizing thoughts, or composing ideas.

How can language add to introspection by shedding light on the nature of thoughts? One might at first suppose that it could tell us only how thoughts are organized by language itself, excluding experiences that lie outside of language. There are reasons to believe, however, that examining the way people talk can shed important light on the nature of thoughts as a whole, beyond just the ways in which they are verbalized.

### An example

It is important to be able to refer to some data. Here I will take advantage of a project that began in Berkeley in the mid-1970s, when we made a short film that was carried around the world and shown to speakers of different languages, who were asked to tell what happened in it (Chafe,

1980). Our main purpose was to use the experience of watching this film, something that was relatively constant across languages, as a basis for examining ways in which that common experience was expressed in different languages. In addition, we could also observe ways in which the experience was verbalized by different speakers of the same language, or even by the same speaker at different times. The film involved a man picking pears and a boy stealing some of the pears, and so it came to be called the Pear Film, and the narratives based on it, the Pear Stories. An extensive collection of those narratives, 68 in all, was recorded in German in Berlin in 1978 by Swantje Ehlers, later a professor at the Justus-Liebig University in Giessen, whose contribution to this chapter is gratefully acknowledged.

Early in the film one sees a man picking pears and then descending a ladder to empty the pears into a basket. When one of the German speakers who saw the film talked about this sequence, she said the following. (The sequences of dots show pauses, whose length corresponded roughly to the number of dots.)

... Dieser Mann sammelt seine Birnen in der.. Schürze,  
 und wenn die Schürze voll ist,  
 ... geht er,  
 ... steigt er mm die Leiter herunter,  
 um diese Birnen in einen Korb zu werfen.  
 .... Werfen ist eigentlich übertrieben,  
 ich.. hatte also wirklich stark den Eindruck,  
 wie sorgfältig der.. Mann mit den Birnen umgeht.  
 ... Und dazu.. mm.. ja.. nahm sogar ne Hals- sein Halstuch.. vom... ab,  
 ... um.. wenigstens die zwei oberen.. Birnen damit... blankzuputzen.  
 Und ich hab' eigentlich darauf gewartet,  
 daß er sich... wenigstens also eine davon... nimmt,  
 .. und reinbeißt.  
 ... Die sa- die Birnen sahen eben auch sehr... frisch und knackig und grün aus.  
 .... Also ich hätt's gemacht.  
 ... Mm (laugh).  
 .... Der Mann.. tat es aber nicht,  
 ... sondern stieg wieder auf die Leiter um weiterzupflücken.  
*This man is gathering his pears in his apron,  
 and when the apron is full,  
 he climbs down the ladder,  
 to throw these pears into a basket.  
 Throw is actually exaggerated,  
 because I was really impressed  
 with how carefully the man handles the pears.  
 And then he took off his kerchief,  
 to polish at least the two top pears with it.  
 And I actually waited  
 for him at least to take one of them  
 and bite into it.  
 The pears looked so fresh and crisp and green.  
 I would have done it.  
 But the man didn't do it,  
 but climbed back up the ladder to pick some more.*

## The (partial) independence of thoughts from language

The fact that thoughts consist of more than just language is evident in disfluencies—pauses, pause fillers, and changes of wording. If thoughts were only verbal, there should be no difficulty in verbalizing them; they would have been verbalized already. But people often do experience difficulty in verbalizing their thoughts. The following line is a good example:

... Und dazu.. mm.. ja.. nahm sogar ne Hals- sein Halstuch.. vom... ab,

There are pauses, the pause filler *mm*, the change from some feminine noun, perhaps *Halsbinde*, to the neuter noun *Halstuch* “neckerchief,” and the abandonment of some prepositional phrase, perhaps *vom Hals* “from his neck,” followed by a longer pause before the final particle *ab*, part of the verb *abnehmen* “take off.”

Sometimes a speaker will talk overtly about a difficulty in matching thoughts with words, saying perhaps *it's hard to put this into words* or *that's not exactly what I meant*. There is a good example here, when this speaker expressed dissatisfaction with her choice of the word *werfen* “throw”:

Werfen ist eigentlich übertrieben,  
*Throw is actually exaggerated,*

The same speaker talked about the film on two later occasions, and we can look at the three ways she expressed her thoughts about the man emptying the pears into the basket. The first time, as shown above, she said this:

.... Dieser Mann sammelt seine Birnen in der.. Schürze,  
und wenn die Schürze voll ist,  
... geht er,  
... steigt er mm die Leiter herunter,  
um diese Birnen in einen Korb zu werfen.  
*This man is putting his pears in his apron,  
and when the apron is full,  
he climbs down the ladder,  
to throw these pears into a basket.*

The second time she said:

.... Er stieg (cough).... mm... von der... Leiter herunter,  
nachdem er etliche Birnen in seiner Schürze,  
... gesammelt hatte und schüttet sie in 'n Korb.  
*He climbed down from the ladder,  
after he had collected some of the pears in his apron,  
and shook them into a basket.*

And the third time:

.... wenn seine Schürze voll ist,  
dann.. steigt er die Leiter herunter,  
.... füllt die Äpfel in einen Korb.  
... Vor der Leiter.  
*when his apron is full,  
then he climbs down from the ladder,  
puts the apples into a basket.  
In front of the ladder.*

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The language of each of these three excerpts differed in various ways, but the thoughts remained very similar, although between the second and third versions her memory had transformed the pears into apples. She must have remembered what was essentially the same event when she said any of the following:

um diese Birnen in einen Korb zu werfen,  
 und schüttet sie in einen Korb,  
 füllt die Äpfel in einen Korb.  
*to throw these pears into a basket,*  
*and shook them into a basket,*  
*puts the apples into a basket.*

People quickly forget the exact language they used. Thoughts, as thoughts, are not necessarily tied to any particular language that is used to express them on a particular occasion.

### Linguistic evidence for the nature of thoughts

What can language tell us about the nature of thoughts themselves? Introspection shows that thoughts are in constant change. What we are thinking right now is not what we were thinking a few seconds ago, or what we will be thinking a few seconds from now. Language reflects this restlessness, constantly changing language expressing constantly changing thoughts. Restlessness is apparent in these examples, but any example of speech will show the same. Language is produced in brief segments that typically extend over a second or two and are segmentable prosodically. Each line of the above examples represents a separate prosodic phrase or intonation unit, and each phrase reflects a separate focus of consciousness. Thoughts proceed through time by constantly activating new foci, one at a time (Chafe, 1994, cf. Pöppel, 1994).

If we look more closely at how these phrases function, we find that many of them express ideas of events or states along with their participants. The beginning of this excerpt consisted of:

... Dieser Mann sammelt seine Birnen in der.. Schürze,  
*This man is gathering his pears in his apron,*

The idea of an event is captured with the word *sammelt* “is gathering,” in which there are three participants, expressed with the words *dieser Mann* (the one who did the gathering), *seine Birnen* (what was gathered), and *in der Schürze* (where it was gathered). The next phrase,

und wenn die Schürze voll ist,  
*and when the apron is full,*

expresses the idea of a state, being full, which has only one participant, expressed as *die Schürze* “the apron.” The organization of experience into ideas of events or states and their participants appears repeatedly in every language, and is thus a good candidate for a fundamental and universal property of thought organization, basic to the way our minds interpret experience.

Ideas are positioned within a complex web of orientations. The idea of an event or state may be located in time, space, epistemology, evaluation, social interaction, and the context of the ongoing stream of thought. Ideas are expressed with so-called content words, while orientations are usually expressed with affixes or particles. *Dieser (Mann)*, for example, orients the man within the ongoing context, the tense suffix on *sammelt* orients the event in time, and so on.

Language, in short, gives evidence of the following properties of thoughts, whose expression in all languages suggests their universality. First, thoughts are dynamic, constantly changing. Second, thoughts consist of a succession of foci of consciousness. Third, thoughts focus on ideas of events

and states and their participants. Fourth, those ideas are oriented in a multidimensional web of time, space, epistemology, evaluations, interaction, and context. Understanding the basic structure of thoughts in this way, we can return to the question of why they should be organized into semantic structures and why those semantic structures should in turn be represented by syntactic structures. Why is it not possible for thoughts, as thoughts, to be represented directly by sounds?

### From thoughts to semantic structures

As thoughts are organized into semantic structures, there are at least four processes at work, identifiable as selection, categorization, orientation, and combination. To begin with selection, thoughts have a rich content, which extends well beyond anything language can express. The time and resources available to speakers are too limited to let them verbalize everything they are thinking, and much of what they are thinking is likely to be irrelevant to the interests of others. People select what to say in part on the basis of what they judge will resonate in the minds of their listeners. Language attempts to select from thoughts those ideas that are judged of mutual interest. On different occasions the selections may be different. As one small example, the third time this speaker talked about the film she described the location of the basket as *vor der Leiter* “in front of the ladder,” but she omitted that location in her other narratives.

A second essential adjustment is categorization. In addition to their rich content, thoughts contain ideas that are particular and idiosyncratic. What we experience from one moment to the next is something we never experienced before and will never experience again in the same way. It would obviously be impossible for language to associate every particular idea with a unique sound. Even if it were possible, there would be no way a listener could know what particular idea was associated with whatever sound might have been assigned to it. The association of thoughts with sounds must be shared by speaker and listener. It follows that particular elements of thought need to be interpreted as instances of shared categories.

Categorization accomplishes two things. First, it provides expectations regarding unique experiences by associating them with already familiar experiences, so that one can know something of their nature and what might be done with them. Knowing the *Birne* or *pear* category lets one expect of an instance of that category that it can, for example, be eaten. But at the same time the category provides a word or phrase that can be used for verbalizing the particular idea, for example the words *Birne* and *pear*. Some ideas lend themselves easily to categorization. Such “highly codable” ideas (Brown, 1958) are likely to be categorized the same way at different times, as was true of *die Leiter* “the ladder” or of the event that was categorized as an instance of *heruntersteigen* “climb down.” Other ideas fit less well into any easily available category and are likely to be categorized differently at different times, as with *werfen* “throw,” *schütten* “shake,” and *füllen* “fill up.” In such cases a speaker may at times show dissatisfaction with the categorization, as in *werfen ist eigentlich übertrieben* “throw is actually exaggerated.” In short, in addition to selecting from their thoughts, speakers also interpret particular ideas as instances of categories, something they may accomplish more or less easily.

A third adjustment of thoughts to semantic structures is orientation. If, as suggested above, thoughts are positioned in space, time, epistemology, evaluation, interaction, and the context of other thoughts, and if we express ideas in order to communicate them, some of these orientations may be necessary, so that listeners can position ideas within their own store of thoughts. Comparing different languages shows that the orientations present in thought may be too many and too diverse for all of them to be verbalized. Every language makes it easy or even obligatory to express certain orientations while ignoring others. Different languages make these choices in different ways.

In these examples we can note a complex interplay of tenses and aspects. The man's activities were first expressed with the present tense: *er sammelt die Birnen* "he is gathering the pears," *er steigt die Leiter herunter* "he climbs down the ladder." But then came a shift to the past: *er nahm sein Halstuch ab* "he took off his neckerchief," *er stieg wieder auf die Leiter* "he climbed back up the ladder." The speaker's own thoughts were oriented first with a simple past: *ich hatte also wirklich stark den Eindruck* "I had the really strong impression," but then there was a switch to *haben* with the past participle, a switch impossible to reproduce in English: *ich hab' eigentlich darauf gewartet* "I actually waited for it." The man's hypothetical future action was captured with the present tense: *daß er sich wenigstens also eine davon nimmt, und reinbeißt* "that he would at least take one of them and bite into it." But then the speaker's own, more hypothetical action was expressed with the subjunctive: *ich hätt's gemacht* "I would have done it." These shifts in orientation had subtle effects on thought transmission.

The fourth adjustment is combination. The ideas and orientations that are chosen for verbalization do not float in the air like disconnected bubbles. Obviously they must be combined, but the ideas and orientations themselves do not always dictate unique patterns of combination. Different languages offer different *constructions* from which a speaker can choose. The ways semantic elements are combined is open to dispute and is too large an issue to be addressed here, but obviously combining them in some way is a necessary fourth step in the adjustment of thoughts to language.

Thoughts, in summary, are adjusted to language in the four ways described. Every language provides its speakers with ways of selecting, categorizing, orienting, and combining thoughts as ways of shaping them, so that they can be associated with sounds. Every language provides its own unique semantic resources, its own ways of accomplishing these adjustments in order to yield a semantic structure.

The resulting semantic structure bears some resemblance to a syntactic structure. The categorized events share properties with verbs, the categorized participants with nouns. The orientations resemble inflections on verbs and nouns, as well as function words of various types. The ways in which these elements are combined resemble syntactic constructions. The fundamental difference between a semantic structure and a syntactic structure is that semantic elements and their combinations are all directly related to thoughts, whereas syntactic elements may not be.

### From semantic structures to syntactic structures

The fact that a syntactic structure is not a semantic structure is hardly a new idea. Linguists have explored many ways of describing syntactic structures, but the latter always contain some elements, patterns, and processes that depart from a direct association with thoughts. Why should that be? Why are semantic structures not associated with sounds directly? A syntactic structure is in essence a semantic structure that has been modified by language change and, specifically, by the twin historical processes of lexicalization and grammaticization.

To begin with lexicalization, we can focus on the formation of idioms (Chafe, 1968). An example is an idiom that was used by another German speaker to express the idea of an event that occurred toward the end of the film. Early in the film one saw a boy steal some pears. Later he gave three of the pears to some other boys. At the end of the film, those boys walked by the man who had been picking the pears, who looked as if he was wondering how the boys obtained the pears they were carrying and eating. Some speakers said that he was *verblüfft* "perplexed" or *verdutzt* "bewildered," but one speaker described his state of mind by saying *er kann sich keinen Vers daraus machen*, literally "he can't make himself any verse out of it."



Let us suppose that among this speaker's thoughts was the idea of the man's puzzlement, and that she chose to interpret it as an instance of a certain semantic category provided by the German language. In semantic terms, it was a unitary category in the same way that *verblüfft* or *verdutzt* expressed unitary categories. The category in question was activated when one heard *er kann sich keinen Vers daraus machen*. In order to be associated with sounds, it needed first to be converted from a semantically unitary category into something else: something *quasi-semantic*, in the sense that it behaved as if it were composed of semantic elements although it was not. What was realized in the sounds *er kann sich keinen Vers daraus machen* was no longer directly semantic but the result of idiom formation. English has a semantic category that is quite similar, although it is associated with a different syntactic structure: *he can't make head or tail of it*.

This processing of thoughts through intermediate, quasi-semantic syntactic structures must have been a major step in the evolution of language, something uniquely human. Other animals have signaling systems that allow their thoughts to be selected and categorized and expressed through sounds or smells or visual displays. But only in humans, apparently, do we find this intermediate stage in which some semantic elements are first symbolized with other, quasi-semantic elements before they proceed to be expressed with sounds.

Idiomatization leads to the indirect expression of ideas of events or states and their participants. But something similar occurs with the semantic elements that orient those ideas. The term *grammaticization* already suggests converting something into grammar that was not grammar to begin with. Like idiomatization, grammaticization leads to the intermediate expression of semantic elements by quasi-semantic elements, but in this case the semantic elements are not ideas but orientations.

How grammaticization occurs can be illustrated with an example from English. It is an example that has been frequently discussed (e.g. by Hopper and Traugott, 1993), but its familiarity can make it easy to appreciate. I refer to the use of the construction *be going to* as a way of expressing futurity. In the beginning there were expressions such as *I'm going to eat* (that is, *I'm going for the purpose of eating*), where there were two events, a *going* event and an *eating* event. Now there is only the eating, and the language has acquired a new way of expressing a future orientation. The *going* event, its orientation with the progressive aspect (*I'm going*), and its purposive relation to the eating event (*I'm going for the purpose of eating*), were all left as quasi-semantic elements of English syntax, no longer directly associated with the thought of going somewhere for a purpose. Semantically there is only the future orientation, but before it is passed on to sound it must first be converted into this quasi-semantic syntactic form.

Speakers sometimes exhibit a tendency to simplify this picture by reducing the distinction between syntax and semantics. Quasi-semantic elements, just because they are not directly tied to thoughts, have a tendency to dissipate over time. The reduction of *going to* to *gonna* illustrates nicely this drive toward a more direct expression of thoughts. Speakers have lost direct awareness of the semantic origin of *be going to*, and by eroding it to *gonna* they have created a simpler auxiliary. The need for a separate syntactic structure has been to that extent reduced.

Returning to German, we can ask how this way of viewing language applies to a brief segment from the narrative we have been examining. This speaker alternated between two points of view. Sometimes she talked about what was happening in the film—*er sammelt Birnen* “he's gathering pears,” *er nahm sein Halstuch ab* “he took off his neckerchief,” *er tat es nicht* “he didn't do it”—and sometimes she stepped outside the film and talked about her own reactions to it—*werfen ist übertrieben* “throw is exaggerated,” *ich hab' darauf gewartet* “I waited for it,” *die Birnen sahen frisch und knackig und grün aus* “the pears looked fresh and crisp and green.”

We can examine one of those places where she stepped outside the film. As her thoughts moved forward, she arrived at a thought she verbalized as follows:

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Und ich hab' eigentlich darauf gewartet daß er sich,  
 ... wenigstens also eine davon,  
 ... nimmt,  
 .. und reinbeißt.  
*And I actually waited for him  
 to take at least one of them,  
 and bite into it.*

But this is not the only way she might have verbalized this thought, and in fact on another occasion she said:

.... man dachte oder erwartete daß er,  
 .... nun eine nimmt,  
 und kräftig reinbeißt,  
*one thought or expected that he,  
 would take one,  
 and vigorously bite into it.*

On still another occasion she said:

... und man hat den Eindruck,  
 ... daß er... eigentlich jeden Moment,  
 wenigstens in einem Mal hineinbeißen müßte,  
*and one had the impression,  
 that he actually at any minute,  
 at least at some point had to bite into it,*

Focusing on the first phrase of her first version, we can note for comparison the corresponding phrases in her second and third versions:

- (1) und ich habe eigentlich darauf gewartet *and I actually waited for it*
- (2) man dachte oder erwartete *one thought or expected*
- (3) und man hat den Eindruck *and one has the impression*

The phrase in (1) is centered on the idea of an event that is categorized as an instance of the *warten* “wait” category, or more precisely the derived, transitive category *warten auf* “wait for.” In (2) she had trouble deciding whether to categorize this idea as *denken* “think” or *erwarten* “expect.” In (3) she changed the categorization to *den Eindruck haben* “have the impression.”

The event idea in (1) was oriented as something that happened in the past. It included as a participant the idea of the person who waited—the speaker herself. Perhaps she felt a more personal involvement just after seeing the film, because later she changed it to the more impersonal *man* “one.” She gave this idea an epistemic orientation with the word *eigentlich* “actually,” which implied something a little unexpected about the man taking a bite out of a pear. There was nothing corresponding to *eigentlich* in (2) or (3). Connections with other thoughts were evident in the word *und* “and” at the beginning, attaching this thought to the chain of preceding thoughts, and the *da* of *darauf* “for it,” anticipating what was to come, her idea that the man would take a bite. Everything mentioned so far had a direct relation to her thoughts. But the construction consisting of *haben* “have” with the past participle (*habe... gewartet*), literally “have waited,” shows a mismatch between syntax and semantics, as does the agreement of *haben* with its subject: *ich habe* (obscured in *ich hab' eigentlich*).

Does all of this really matter? Why should syntacticians concern themselves with the relation of syntax to thought? In the most general terms, there is a need to refocus our attention in order to understand language and languages more realistically, with syntactic structure understood, not as the centerpiece of language, but as a modification of semantic structure that mixes semantic and quasi-semantic elements. Such a perspective should motivate us, first, to pay more attention to the nature of semantics and the historical processes that convert it into syntax, abandoning attempts to treat syntax as self-contained. It should lead us ultimately to see the fundamental question to be the nature of thoughts and their relation to semantics. But there are two specific areas where a change in perspective can be especially useful. One is the familiar question whether the speakers of different languages think differently. The other is the nature of translation.

### Do speakers of different languages think differently?

Is it true that people who speak different languages think differently? The question goes back at least to German scholars like Johann Gottfried von Herder, Wilhelm von Humboldt, and Heymann Steinthal. At present one often hears heated disputes over whether Benjamin Lee Whorf was on the right track or totally misguided. Strong opinions exist on both sides. If the question is whether different languages provide their speakers with different *semantic* resources, it is obvious that they do. No one doubts that different languages organize *sounds* in different ways, and surely they differ at least as much, and probably more, in the ways they organize *thoughts*. If the question is whether *syntactic* structures influence thinking, we have seen how lexicalization and grammaticization distort semantic structures in ways that increase their distance from thoughts. Asking whether syntactic structures influence thoughts is a pointless question.

To what extent, then, do the different *semantic* structurings imposed by different languages feed back into thoughts? Dan Slobin has described what he calls “thinking for speaking” (Slobin, 1996), and he and others have shown convincingly that the way one thinks *when one speaks* does differ across languages. We are left with the question of how much *all* of thinking—not just its verbal component—is affected by the different semantic resources of different languages. However that may be, an important component of thoughts is unquestionably verbal—we think much of the time with inner language—and certainly that much of thought cannot avoid being affected by language differences. The aspects of thought that are not verbal but perceptual and emotional may be freer to go their own ways regardless of one’s language. It is likely that the influence of verbalized thought on all of thought differs with different situations, different individuals, and different cultures, some cultures encouraging verbal thinking or nonverbal thinking more than others. Language necessarily influences how we think when we are speaking aloud, and also to a considerable extent when we are speaking to ourselves; but that is only part of thinking.

### The translation paradox

If the semantic structures of different languages organize thoughts in different ways, how is it possible for the thoughts that are expressed in one language to be expressed adequately in another? There is a paradox here (Chafe, 2003). We find people translating from one language to another all the time, and the results seem reasonably successful, at least for practical purposes. How can that be?

The essentials of translation can be understood in the following way. We begin with the thoughts of the source: someone who is either speaking or writing in the source language. Those thoughts are processed in accordance with the semantic and syntactic resources of that language, yielding the sound or writing that provides the input for the translator. That sound or writing leads

to thoughts in the mind of the translator, thoughts that resemble those of the source, as they were filtered through the semantic choices that were made. The translator must then pass those thoughts through the semantic and syntactic resources of the target language, so that in the end they can enter the thoughts of the consumer of the translation. The success of the translation might be measured by the degree to which the consumer's ultimate thoughts resemble those of the source. But because there is an inevitable unconformity between the semantic and syntactic resources of the source language and the target language, the source thoughts and the target thoughts can never be identical.

Looking again at the beginning of our example, we can ask how it might be translated into English, a closely related language, as was attempted above. Languages that are not as similar as German and English can create larger problems. Here, once again, is the German source:

... Dieser Mann sammelt seine Birnen in der.. Schürze,  
und wenn die Schürze voll ist,  
... geht er,  
... steigt er mm die Leiter herunter,  
um diese Birnen in einen Korb zu werfen.  
... Werfen ist eigentlich übertrieben,  
ich.. hatte also wirklich stark den Eindruck,  
wie sorgfältig der.. Mann mit den Birnen umgeht.

The following was suggested as a possible English translation:

*This man is gathering his pears in his apron,  
and when the apron is full,  
he climbs down the ladder,  
to throw these pears into a basket.  
Throw is actually too strong,  
because I was really impressed  
with how carefully the man handles the pears.*

Attempting to translate the third word of the German, *sammelt*, calls attention to the fact that the semantic resources of English include a durative or so-called *progressive* orientation that is absent from the semantic resources of German. This speaker used the simple present tense with *sammelt*. To say in English *this man gathers his pears* would be awkward, and the progressive *is gathering* is the obvious choice.

Such subtle differences are very common. There is a different problem with *werfen ist eigentlich übertrieben*. In English it is certainly possible to say *throw is actually exaggerated*, but it is probably more natural to use a noun: *throw is actually an exaggeration*, whereas it might be less natural in German to say *werfen ist eigentlich eine Übertreibung*. In fact, *exaggeration* in any form may not be the ideal choice in English, where it might be more natural to say *throw is actually too strong*. Translation is thus an art where subtle choices come frequently into play.

The need for rephrasing is more obvious in the last line, where *wie sorgfältig der Mann mit den Birnen umgeht* exhibits another German idiom. No one would expect to translate it literally: *how carefully the man goes around with the pears*. The most natural phrasing in English might be *how carefully the man handles the pears*, but that is a choice with other connotations. The literal meaning of *damit umgehen* "go around with" may be experienced as a shadow meaning by German speakers, and shadow meanings are particularly resistant to translation (Chafe, 2008).

These have been a few brief illustrations of how a translation, even between such closely related languages, cannot reproduce everything in the source. At the same time it is important to keep in

mind that people do not remember very long the specific language they chose to express their thoughts in. The thoughts themselves, the ideas of events and their participants, may remain in memory longer, but the way they happen to have been verbalized on a particular occasion quickly dissipates.

We are thus left with the following question. Although translations cannot capture the full richness of the semantic choices made in a particular verbalization, if those specific choices quickly fade from memory and if the translation does succeed in capturing more grossly the ideas of events and their participants, does that mean that, whatever differences there may have been at first, what remains in memory can be more or less the same in the mind of the original language producer and the hearer or reader of the translation? Is it in the end only a question of how well the translation succeeds in conveying the *ideas* expressed by the original—the ideas themselves, and not the ways in which they happen to have been categorized and oriented and combined on a particular occasion? If specific semantic categorizations and orientations quickly fade, how much is the memory for thoughts affected in the long run by whatever language happened to express those thoughts on a particular occasion?

It is an important question, which has no clear answer at present. To carry the question further, it may sometimes be the case that the thoughts conveyed by language pass through three stages in people's minds. During the first stage, the moment when language is produced and received and for a short time thereafter, people are conscious not only of the ideas and the emotions that were expressed, but also of the rich flavoring that was added by the ways in which those ideas were categorized, oriented, and combined. Within a short time, however, at least some of those categorizations, orientations, and combinations will have faded from memory, whereas the ideas themselves, along with associated emotions, will remain much longer. That is stage two. It is during that stage that we might say that a translation has been successful, because the ideas—as ideas—that were in the mind of the source language speaker or writer were successfully transmitted through the target language.

But sometimes there may be a third stage. If stage two retains the ideas and also the emotions of the original, at stage three the ideas may fade and little may be remembered except the emotions. After sufficient time, all that is remembered are the emotions or attitudes that were at first just one component of the thoughts. People may remember little more than how they felt about something, and no longer what that something was.

If we are sometimes left with only this stage three, there is a final question of interest. To what extent are emotions, apart from the ideas with which they are associated, affected by language differences? In this speaker's third narrative, she ended her description of the pear-picking scene as follows:

Das ist alles sehr... tsch anschaulich,  
oder sehr.. hmm.... ja einprägsam sinnlich.  
*All that is very vivid,  
or very impressively sensual.*

She clearly had trouble expressing her feeling, as shown by her hesitations and changes of wording. Now, if events are processed as perceptual experiences, presumably the processing takes place in the neocortex. That is also where the segmental aspects of phonology—the vowels and consonants and syllables—are processed. But emotions are processed in the older brain, where connections to the segmental aspects of language are less direct. Hence, people often find it difficult to express emotions in words. Could it be that languages differ most in the ways they express and communicate emotions, and that this kind of difference is in the end the most difficult of all challenges for translations to solve? Language has an aesthetic component in which

emotions are heavily involved, and that component is widely recognized as the most difficult translation problem of all.

## Summary

My main points have been, first, that thoughts are where the action is: where language begins for the speaker and where it ends for the listener. Thoughts are what people are conscious of, as language is created and received and remembered. Second, when thoughts are expressed in language, they must be filtered through processes of selection, categorization, orientation, and combination, and those processes lead to semantic structures. Third, because languages change through lexicalization and grammaticalization, what is passed on to sounds is not a semantic structure directly, but a kind of distorted semantic structure replete with quasi-semantic elements, what we know as syntax. Finally, both thoughts and the language that expresses them are dynamic, constantly changing through time as people think and talk. It follows that static representations of isolated sentences leave much to be desired.

## Further reading

Chafe, W. (1994) *Discourse, Consciousness, and Time: The Flow and Displacement of Conscious Experience in Speaking and Writing*. Chicago, IL: The University of Chicago Press.

## References

- Brown, R. (1958) *Words and Things*. Glencoe, IL: The Free Press.
- Chafe, W. (1968) 'Idiomaticity as an anomaly in the Chomskyan paradigm', *Foundations of Language*, 4: 109–127.
- Chafe, W. (ed.) (1980) *The Pear Stories: Cognitive, Cultural, and Linguistic Aspects of Narrative Production*. Norwood, NJ: Ablex.
- Chafe, W. (1994) *Discourse, Consciousness, and Time: The Flow and Displacement of Conscious Experience in Speaking and Writing*. Chicago, IL: The University of Chicago Press.
- Chafe, W. (2003) 'The translation paradox', in N. Baumgarten, C. Böttger, M. Motz, and J. Probst (eds.) *Übersetzen, Interkulturelle Kommunikation, Spracherwerb und Sprachvermittlung: das Leben mit mehreren Sprachen. Festschrift für Juliane House zum 60. Geburtstag. Zeitschrift für Interkulturellen Fremdsprachenunterricht*, 8(2/3): 1–10. Available online at: <http://www.ualberta.ca/~german/ejournal/Chafe1.htm>.
- Chafe, W. (2008) 'Syntax as a repository of historical relics', in A. Bergs and G. Diewald (eds.) *Constructions and Language Change*. Berlin: Mouton de Gruyter, pp. 259–266.
- Hopper, P. J. and Traugott, E. C. (1993) *Grammaticalization*. Cambridge: Cambridge University Press.
- James, W. (1890) *The Principles of Psychology*. New York: Henry Holt (reprinted in 1950 by Dover Publications).
- Pöppel, E. (1994) 'Temporal mechanisms in perception', in O. Sporns and G. Tononi (eds.) *Selectionism and the Brain: International Review of Neurobiology*, vol. 37. San Diego, CA: Academic Press, pp. 185–201.
- Slobin, D. I. (1996) 'From "thought and language" to "thinking for speaking"', in J. J. Gumperz and S. C. Levinson (eds.) *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press, pp. 70–96.