# Expressive content and the semantics of contexts NSF Grant No. BCS-0642752

Christopher Potts UMass Amherst

February 26, 2007

# **Contents**

1	Expressives in public discourse and linguistic theory	2
2	Empirical domain	3
3	Descriptive properties of expressives  3.1 Independence	4 5 6 8 10 11
4	3.6 Repeatability	11 12 13
5	Open questions5.1 Acquisition5.2 Psycholinguistics5.3 Computation5.4 Linguistic interfaces and extensions	14 14 15 15
6	Work plan	16
7	In sum	18
References		18

# 1 Expressives in public discourse and linguistic theory

In the public discourse, we find heated discussions of topics like hate speech and cursing — linguistic issues that connect directly with the social and political concerns of society. Some representative examples:

- (1) A hapless new school superintendent attempts to "make his stand against racism clear" by saying, in a speech, "Niggers come in all colors. To me, a nigger is someone who doesn't respect themselves or others". His intentions are good, but the community is outraged. He is lucky to keep his job.<sup>1</sup>
- (2) In March 2004, Bono, the lead singer of the rock band U2, used the phrase *really fucking brilliant* during the televised Golden Globe Awards. Originally, this passed muster with the FCC, since he wasn't describing a sexual act, but rather using *fucking* as a kind of emphatic (expressive!) modifier. But the FCC chairman eventually sided with the special interest groups that were up in arms and issued a formal ruling that the broadcast contained obscene language.<sup>2</sup>
- (3) In 1999, a Washington D.C. mayoral aide resigned after using the word *niggardly*. The aide himself told the Washington Post, "Although the word, which is defined as miserly, does not have any racial connotations, I realize that staff members present were offended by the word."<sup>3</sup>

Current theoretical linguistics has little to say about what happens linguistically in situations like these. This marginalization of the expressive dimension is initially puzzling. In general, researchers in semantics and pragmatics recognize that expressive content poses challenging new questions. They are, as a group, eager for practical applications. And the importance of these examples was recognized at the start of modern compositional semantics (Carnap 1935; Frege 1979). So one would think that expressive content would be the topic of the day. However, it has, until recently, looked foreign from the perspective of linguistic theory.

The field is poised now to change this, however. Recent breakthroughs in the theory of multidimensional content and context-dependency suggest a clear path to a theory of expressive content. We propose to develop such a theory. Moreover, we have a strategy, described in section 4, for making the basics of this theory intelligible to nonlinguists, so that it can inform discussion of scenarios like those in (1)–(3).

<sup>&</sup>lt;sup>1</sup>Garcia's epithet creates outrage. Lisa Kim Bach and Natalie Patton. Las Vegas Review-Journal, July 27, 2000. <a href="http://www.reviewjournal.com/lvrj\_home/2000/Jul-27-Thu-2000/news/14052406.html">http://www.reviewjournal.com/lvrj\_home/2000/Jul-27-Thu-2000/news/14052406.html</a>.

<sup>&</sup>lt;sup>2</sup>FCC File number EB-03-IH-0110, released March 18, 2004. <a href="http://www.fcc.gov/eb/Orders/2004/FCC-04-43A1.html">http://www.fcc.gov/eb/Orders/2004/FCC-04-43A1.html</a>

<sup>&</sup>lt;sup>3</sup>Williams aide resigns in language dispute. Yolanda Woodlee. The Washington Post, January 27, 1999.

## 2 Empirical domain

We will concentrate on lexicalized expressive content of the sort highlighted in (4)–(8). These examples are noteworthy to nonspecialists only for being both essential to discourse and ubiquitous.

#### (4) Expressive adjectives<sup>4</sup>

Bush says the damn Republicans deserve public support.

#### (5) Honorifics <sup>5</sup>

Ame ga huri-<u>masi</u>-ta. [Japanese performative honorific; Harada 1976:502] rain SUBJ fall-HON-PAST

- i. 'It rained.'
- ii. 'The speaker honors the addressee.'

#### (6) **Antihonorifics**<sup>6</sup>

Sam-ga warai-yagat-ta. [Japanese; Potts and Kawahara 2004] Sam-NOM laugh-antihon-PAST

- i. 'Sam laughed.'
- ii. 'The speaker views Sam negatively.'

## (7) Epithets<sup>7</sup>

saami ha-l-mazduub nəse l-maw ad [Lebanese Arabic; Aoun et al. 2001:385] Sami 3-the-idiot-sm forgot-3sm the-appointment 'Sami, this idiot, forgot the appointment.'

<sup>&</sup>lt;sup>4</sup>Expressive adjectives are addressed in Quang 1971; Cruse 1986; Corazza 2005; Kaplan 1999; Soames 2002; Huddleston and Pullum 2002; Potts 2003b, 2005.

<sup>&</sup>lt;sup>5</sup>Additional references on honorifics include Asada 1996; Bartholomew and Brockway 1988; Banks 1989; Bayraktaroglu and Sifianou 2001; Hill and Hill 1978; Hwang 1990; Irvine 1995; Jensen 1981; Neustupny 1986; Prideaux 1970; Sells and Kim 2006; Slama-Casacu 1986.

<sup>&</sup>lt;sup>6</sup>Antihonorifics, though less studied than regular honorifics, are well described by Japanese grammarians: Tokieda 1940; Sakuma 1940; Tsujimura 1978; Kikuchi 1994. They are in addition given theoretical treatment by Potts and Kawahara 2004.

<sup>&</sup>lt;sup>7</sup>Epithets are a primary concern in Aoun and Choueiri 2000; Aoun et al. 2001; Cruse 1986; Corazza 2005; Kaplan 1989; Kratzer 1999; Potts 2003b, 2005.

#### (8) Particles and adverbials<sup>8</sup>

- a. <u>Damn</u>, I forgot my keys.
- b. Andries, jy is 'n idioot!

  Andries you.NOM are an idiot

  'Andries, you idiot!'

[Afrikaans; Potts and Roeper 2006]

One could add to this list a range of racial epithets, curses, interjections, and offensive idioms, and the examples can only suggest the high degree of cross-linguistic diversity. For instance, the small-clause type construction represented by (8b) (and its English translation) is attested by Potts and Roeper 2006 also for Japanese, Russian, German, Dutch, and Hebrew.<sup>9</sup> This diversity means that it would be ideal to have a large group of researchers at work on the project.

In the next section, we identify six descriptive properties of expressive content, exploring each in turn. We then show how the core ideas of the theory can be translated into nontechnical terms, so that they can inform discussions of expressive content items in social and legal arenas. We then highlight important extensions of these ideas into other areas of theoretical linguistics as well as psycholinguistics and computation. Following that, we describe a three-year work plan that balances enriching the factual domain with developing theories and exploring their consequences.

# 3 Descriptive properties of expressives

Our current research on expressive content is grounded in the following six descriptive properties:

- i. *Independence*: Expressive content contributes a dimension of meaning that is separate from the regular descriptive content.
- ii. Nondisplaceability: Expressives predicate something of the utterance situation.
- iii. *Perspective dependence*: Expressive content is evaluated from a particular perspective. In general, the perspective is the speaker's, but there can be deviations if conditions are right.
- iv. *Descriptive ineffability*: Speakers are never fully satisfied when they paraphrase expressive content using descriptive, i.e., nonexpressive, terms.
- v. *Immediacy*: Like performatives, expressives achieve their intended act simply by being uttered; they do not offer content for inclusion into the common ground so much as inflict content upon it.
- vi. Repeatability: If a speaker repeatedly uses an expressive item, the effect is generally one of strengthening the emotive content, rather than one of redundancy.

<sup>&</sup>lt;sup>8</sup>Particles are extremely well studied. Work directly addressing topics central to expressives includes Bach 1999; Blakemore 2001; Kratzer 1999; McCready 2004; Potts and Roeper 2006.

<sup>&</sup>lt;sup>9</sup>Potts and Roeper playfully adopt the "extremely safe" universal, "Every human language provides the means for calling oneself a fool".

The central properties identified in the next section have evolved during the course of our work on the topic. The changes have led us to an understanding of many formerly puzzling phenomena. We expect to uncover additional connections between this work and the subfields of semantics, pragmatics, and linguistic processing. Because the terrain is largely uncharted, new connections often emerge, and the factual basis grows and changes rapidly.

#### 3.1 Independence

Kaplan (1999) announces that "Truth is immune to epithetical color". It's an observation that we find throughout discussions of expressive content, both theoretical and traditional (Frege 1979; Cruse 1986; Kikuchi 1994; Sells and Kim 2006; Corazza 2005; Williamson 2007). This is the *independence* property of expressives. It says that we can change or remove the expressive content of a phrase without affecting its descriptive content (Potts 2005; §3.63).

For example, one can assent to the descriptive content of (9) — the proposition that Kresge is famous — without thereby assenting to the characterization of Kresge expressed by *that bastard*.

(9) That bastard Kresge is famous.

At a technical level, this means that the expressive and descriptive meanings that (9) can convey should not be combined into a single unit of meaning. Even without knowing what kind of values we seek, we can conclude that we require a *tuple* of values; we are closer to the meaning of (9) with (10) than we are with a conjunction of a descriptive meaning with an expressive one.

- (10) a. Descriptive: Kresge is famous
  - b. Expressive: Kresge is a bad in the speaker's opinion

The expressive meaning here is a very rough approximation. It is improved on in section 3.4.

Closer inspection of the independence property reveals an important subtlety, discussed extensively in Potts 2005 and Asudeh and Potts 2004. It is not quite true that the two dimensions of meaning operate independently of each other. They interact in one limited but vital sense: expressive operators can reach into the expressive realm to find their arguments. For instance, the meaning of the Japanese subject antihonorific takes Sam as its semantic argument in (6) above, though Sam belongs to the descriptive domain.

Thus, we do not have the complete independence of dimensions that we find with, for instance, the ordinary and focus dimensions of Rooth (1985, 1992). Some expressive meanings act as bridges between the two realms, by mapping descriptive content to expressive content. It is only at the level of saturated meanings that we have complete independence of the descriptive and expressive realms.

One can model this efficiently by dividing the realm of possible meanings into the expressive meanings and the descriptive meanings. The past two decades have seen a flourishing of work on multidimensional logics for natural language semantics (Büring 1999; Chierchia 2004; Dekker

2002; Kratzer 1999; Lasersohn 1999; Levinson 2000; Potts 2005; Rooth 1985, 1992). We expect expressives to contribute substantially to this area of research. In particular, our recent work on expressives has shown the way to multidimensional semantic systems in which the dimensions are not stipulated in the theory of semantic types or semantic composition, but rather flow from deep facts about the models for the expressions involved. Sections 3.4 and 3.5 sketch one way in which this can work, summarizing the proposals of Potts 2006b.

## 3.2 Nondisplaceability

Expressives cannot be used to report on past events, attitudes or emotions, nor can they express mere possibilities, conjectures, or suppositions. They always tell us something about the utterance situation itself. This is the *nondisplaceability* property. The term and an initial formulation date to Cruse (1986):

(11) "Another characteristic distinguishing expressive meaning from propositional meaning is that it is valid only for the utterer, at the time and place of utterance. This limitation it shares with, for instance, a smile, a frown, a gesture of impatience [...]" (Cruse 1986:272)

For some classes of lexical item, nondisplaceability is so strong that even syntactic embedding is impossible (Potts and Roeper 2006). But it is often unproblematic. Such cases are particularly striking, because the semantic content of those morphemes remains unembedded. Such mismatches between syntactic position and semantic scope are well attested with, e.g., definite descriptions and quantifiers. But the expressive mismatches contrast with those more familiar phenomena, as discussed below.

To illustrate, we first track the content of bastard in the following paradigm:

- (12) a. That bastard Kresge isn't late for work. (#He's a good guy.)
  - b. It's just false that that bastard Kresge is late for work. (#He's a good guy.)
  - c. \*If that bastard Kresge arrives on time, he should be fired for being so mean.
  - d. Maybe that bastard Kresge will be late again. (\*Then again, maybe he's not a bastard.)

These examples test with some of the standard presupposition *holes* — operators that cannot cancel or modify the presuppositions triggered by items in their scope (Karttunen 1973). As the infelicitous continuations indicate, the expressive content of *bastard* cannot be interpreted in the scope of these holes. The effect is striking in (12c), where a sensible interpretation would be obtained if *bastard* were conditionalized. But such a reading is absent.

This behavior has suggested to some that expressives are presuppositional (Schlenker 2003; Macià 2002). But a look at the presupposition *plugs* reveals an important contrast between presuppositional and expressive content. Propositional attitude predicates are plugs: the presuppositions in their scope are typically cancelled or modified by these operators, as we see in (13).

(13) Sue believes that Ed realizes that ultraviolet rays invigorate the mind.

On one prominent reading of this example, the presuppositions engendered by *realize* can be satisfied by Sue's belief state. We can optionally evaluate the presupposition of *realize* in the matrix clause, but the important thing for our purposes is the availability of the embedded evaluation. Such embedded evaluations are unattested with expressives. This feature of expressive content is widely recognized (Quang 1971; Cruse 1986; Kaplan 1989, 1999; Soames 2002; Potts 2005). For instance, in (14), the speaker is committed to the characterization of Kresge as a bastard, hence the infelicity of the continuation.

(14) Sue believes that that bastard Kresge should be fired. (#I think he's a good guy.)

We can make the same point with German expressive nominal *Köter*; the example in (15b) is based on one in Zimmermann 1991:165:

- (15) a. Hermann glaubt, dass Hellas Hund gestorben ist. Hermann believes that Hella's dog dead is 'Herman believes that Hella's dog is dead.'
  - b. Hermann glaubt, dass Hellas Köter gestorben ist. Hermann believes that Hella's damn-dog dead is 'Herman believes that Hella's damn dog is dead.'

Both examples assert that Hermann stands in the belief relation to the proposition that Hella's dog is dead, but the second example also conveys that the speaker of the sentence holds Hella's dog in low regard (or something to that effect; see section 3.4).

The nondisplaceability of expressives extends to tense operators. Tense operators can plug presuppositions, but they can also show hole-like behavior. In striking contrast, expressive content is never interpreted in their scope. For example, (16) cannot convey that the speaker disliked Kresge only in the past.

(16) That bastard Kresge was late for work yesterday. (\*But he's no bastard today, because today he was on time.)

While we might sense a conversational implicature that the speaker did dislike him in the past, this flows from the nonnegotiable meaning that the speaker dislikes him at the time of utterance. Cruse's generalization (11) makes immediate sense of this: locating the expressive content in the past would displace it to that past situation, violating nondisplaceability.

At this point, one might object to my singling out of expressive content according to these tests. The content of definite descriptions can also escape up through holes, plugs, and tense operators (Enç 1986; Sharvit 1998; von Stechow 2003). For example, both of the following can be read as involving a speaker commitment to the content of *hero* at the time of utterance:

- (17) a. Sue believes that the hero is a coward/firefighter.
  - b. Today, the hero was discovered to be a coward/firefighter.

In these examples, the content of *hero* can be interpreted outside the scope of the relevant operator (the attitude predicate in (17a), the past-tense morpheme in (17b)). Importantly, though, these widest-scope readings are not forced. They are merely available, alongside embedded readings. If we embed the descriptions under additional operators, additional readings arise. Not so with expressive content. As we have seen, essentially no kind of syntactic embedding delivers the possibility of a semantically embedded interpretation. It is this invariance that accounts for much of what is special about expressive content.

There are a variety of ways in which one can capture this property. In Potts 2005, it follows from general limitations on the space of possible meanings: expressives are not in the domain of any function. They are strictly semantic outputs. But in order to displace meaning M there must be a function f that applies to M, i.e., a function with expressive M in its domain.

The more recent work reported on in this proposal moves us towards a deeper explanation for nondisplaceability. We argue that expressives act dynamically on the context parameter itself. This is motivated by the other properties of expressive content, and it too has nondisplaceability as a consequence.

We close this section with two challenges to nondisplaceability. Kratzer argues that the epithet that bastard traces back to the meaning of my father in (18).

(18) My father screamed that he would never allow me to marry that bastard Webster. (Kratzer 1999)

Similarly, Schlenker (2003) offers the following contrast:

- (19) a. \*I am not prejudiced against Caucasians. But if I were, you would be the worst honky I know.
  - b. I am not prejudiced against Caucasians. But John, who is, thinks/claims that you are the worst honky he knows. (Schlenker 2003:(109a,b))

The judgments seem sound. But we think they do not challenge the nondisplaceability property. Rather, they highlight the important *perspective dependence* of expressives, to which I turn now.

## 3.3 Perspective dependence

A speaker's expressives indicate that she is in a heightened emotional state (Bill Ladusaw, pc). They can tell us that she is angry or elated, frustrated or at ease, powerful or subordinated. Sometimes the emotion is directed at a specific individual, as with honorification. Sometimes it is directed at some specific feature of the current state of affairs. And sometimes it is just general, undirected emotion. The present section is devoted to understanding this perspective dependence. Where does it come from? What are its limitations? What notion of perspective is at work in (18) and (19)?

Lasersohn's (2005) theory of *predicates of personal taste* like *fun, boring*, and *delicious* proves extremely useful here. Lasersohn argues convincingly that these are different from expressives. But his notion of a contextual *judge* is important when it comes to connecting expressives with the context. The judge is potentially different from the speaker. It can be thought of as an individual, but it would be equally easy to view it as a modal background or epistemic state.

We can hardwire the judge directly into the denotations for expressives, extending the techniques of Kaplan (1989). Here is an informal example:

(20) In a context c, an utterance of damn with the entity d as its semantic argument creates a context c' that is just like c except that it registers that  $c_J$ , the judge of c, regards d negatively somehow.

This resembles a proposal that Lasersohn rejects for predicates of personal taste. But the wrong predictions that it makes for predicates of personal taste turn out to be correct for expressives (Potts 2006b).

We are now positioned to understand what happens in examples like (18) and (19), where the expressive content seems to be displaced. As a pragmatic default, the judge is the speaker. But Lasersohn discusses many cases in which predicates of personal taste have another salient entity as their judge. The above seem to indicate that such shifting can happen with expressives as well. In (19b), John is salient enough to be the contextual judge, and thus *honky* is evaluated from his perspective. Similarly, *my father* picks out an agent that is so salient and so powerful in the context of the sentence that he becomes not only the attitudinal and deontic judge but also the contextual one.

Once one starts looking for cases in which speaker and judge are distinct, one finds that they are common and, in some cases, quite dramatic. Consider, for instance, example (21), in which a weblog writer's general level of sarcasm is sufficiently high to shift the content of *that vicious bastard* away from her and onto her opponents (the authors of the CPJ report, of which she is skeptical):

(21) "A CPJ report on Venezuela tells us how problems have 'escalated' in Venezuela under Chavez, i.e. the physical attacks against journalists under previous presidents have 'escalated' to Chavez calling the opposition, which includes the media, names. This is very, very serious, but I don't think another coup attempt is called for until Chavez resorts to dramatic irony or sarcasm. But if that vicious bastard uses litotes, then there's no other rational choice than an immediate invasion." <sup>10</sup>

It's the possibility of variation in the judge that accounts for the variation one finds among researchers with regard to the embeddability of expressive content. For the most part, researchers argue that their meanings are not embeddable; see Quang 1971; Cruse 1986; Kaplan 1989; Zimmermann 1991; Kaplan 1999; Soames 2002; Potts 2003b, 2005. But others have taken exception,

<sup>10 &</sup>lt; http://stommel.tamu.edu/~baum/ethel/2002\_08\_11\_ethel-archive.html#80150281 >

as I noted above in connection with (18) and (19). It appears to be a marked option to evaluate expressives with a judge who is not also the speaker, but we need to allow for the possibility.

One might suspect that we should connect variation in this regard with attitude predications. Perhaps attitude verbs can shift the judge in important ways. This would make an important prediction: attitude predicates would not merely facilitate an evaluation in which the judge is not the speaker, they would be a necessary condition for it. Examples like (21) suggest already that this is not correct. There, we see richly expressive language shifted away from the speaker even though there is no attitude predicate in the sentence. Nonetheless, it is clear that expressives can greatly inform context-shifting phenomena under attitude predicates (Schlenker 2003; Anand and Nevins 2004; Sharvit 2004).

## 3.4 Descriptive ineffability

Blakemore (2001:56, 82–82) observes that speakers are generally unable to articulate meanings for a wide range of discourse particles. When pressed for definitions, they resort to illustrating where the words would be appropriately used. Expressives in general manifest this *descriptive ineffability*. Our research has taken us to many articles and grammar books on honorifics and similar pronouns of address in a variety of languages, and we have interviewed speakers of dozens of languages about expressives (see Potts and Roeper 2006 for some of the data this uncovered). We've only once been told that an expressive had an accurate paraphrase in descriptive terms: *bastard* was claimed to mean 'vile contemptible person'. But this paraphrase misses its wide range of affectionate uses (22a), it wrongly restricts to humans (22b), and it is too strong in general for this particular lexical item.

- (22) a. "Here's To You, Ya Bastard!" 11
  - b. "So my story begins with my X-Box [...] Unfortunately, the bastard won't open." 12

The facts indicate that expressive content is not propositional. This accounts for the hemming and hawing that speakers do when asked for propositional paraphrases, and it is corroborated by the neurolinguistic work of Jay (2000), reported on briefly in section 5.2 below. Thus, adapting the proposal of Potts and Kawahara (2004), our current treatment of expressive morphemes centers around a class of expressive indices, as defined in (23). These indices have some internal structure, so that they can encode the degree of expressivity as well as the orientation of the expressive (who is expressive towards whom or what).

(23) An expressive index is a triple  $\langle a \mathbf{r} b \rangle$ , where a and b are in the domain of entities and  $\mathbf{r} \in [-1, 1]$ .

<sup>11</sup> The advertisement continues "You've been such a good friend to me through the years. I'm so grateful." <a href="http://www.noisebot.com/heres\_to\_you\_you\_bastard\_t-shirt">http://www.noisebot.com/heres\_to\_you\_you\_bastard\_t-shirt</a>

<sup>&</sup>lt;sup>12</sup>May 24, 2005, posting at <a href="http://blog.myspace.com/lovesleen">http://blog.myspace.com/lovesleen</a>>

We can read  $\langle a \mathbf{r} b \rangle$  as conveying that individual a is at honorific level  $\mathbf{r}$  for individual b. We can say furthermore that if  $\mathbf{r} = \mathbf{0}$ , then a has no strong feelings towards b. As we increase  $\mathbf{r}$  from  $\mathbf{0}$ , the expressive feelings grow more positive. As we decrease  $\mathbf{r}$  from  $\mathbf{0}$ , they grow more negative. So, for example, the expressive index  $\langle \llbracket \mathbf{tom} \rrbracket -.5 \llbracket \mathbf{jerry} \rrbracket \rangle$  registers that Tom is in a negative expressive relation to Jerry.

As this makes clear, expressive indices are nothing like propositions. This is a positive step, in the sense that it means a demand for a paraphrase of, say, *damn* is nonsensical — conceptually equivalent to asking for a paraphrase of, say, a space—time location.

These expressive indices provide the expressive setting of an utterance. They can form the basis for a wide range of conditions on appropriate usage, thereby providing a formal view of Kaplan's (1999) notion of *expressive correctness*.

## 3.5 Immediacy

Tsujimura (1978) identifies a connection between honorifics and speech-acts:

(24) "expressions such as commands, prohibitions, or wishes clearly establish a relationship with the interlocutor, and hence should be treated from the attitudinal viewpoint [just like honorifics]" (Tsujimura 1978:223)

We call this the *immediacy* of expressive content: the act of uttering them is sufficient for conveying their content. For example, if Sam utters (25), then he has ipso facto placed himself under the obligation to wash the dishes (an example of Searle's (1969:3) 'essential condition' on sincere promises).

(25) I promise that I will wash the dishes.

Expressive content is performative in this sense: the act of uttering an expressive *is* the emotive performance. Epithets provide an especially clear example of this. Here is example (16) again to exemplify:

(26) That bastard Kresge was late for work yesterday. (\*But he's no bastard today, because today he was on time.)

Just saying that bastard Kresge expresses hostility towards Kresge. This partly explains why the continuation But he's no bastard today is infelicitous: the speaker has indicated that he regards Kresge negatively and then denied this without any explicit indication that he has changed his mind, that Kresge has changed, etc. The facts for performatives like promise are analogous:

- (27) I promise that I'll wash the dishes later.
  - a. \*But I refuse to wash the dishes later.
  - b. \*But I make no promises that I'll do it.

These limitations extend beyond self-denials. If Sam promises to wash the dishes, his addressee cannot deny that he has made the promise. The same is true of assertions, requests, demands, and so forth.

We propose to capture the performative nature of expressives by allowing them to act directly on the expressive parameter of the context. When an expressive is uttered, it replaces an expressive object in the input context with a new expressive object. The technical details of this are fairly well understood at this point (Schlenker 2003; von Stechow 2003; Sharvit 2004; Anand and Nevins 2004), though our use of the techniques is novel. We do not review them here, but the details are given in full in Potts 2006b.

In the end, the system makes the following claim: an expressive changes the utterance context by changing its expressive setting. For instance, suppose we are in a context c in which Sue has not registered any expressive attitude towards Kresge. Then Sue says "that bastard Kresge". In doing this, she moves us to a context c' such that  $\langle \llbracket \mathbf{sue} \rrbracket \ \mathbf{0} \ \llbracket \mathbf{kresge} \rrbracket \rangle$  in c has been replaced in c' with  $\langle \llbracket \mathbf{sue} \rrbracket \ \mathbf{0} \ \llbracket \mathbf{kresge} \rrbracket \rangle$ . Sue can go on to say nice things about Kresge, but this will not reverse the change her expressive wrought. So the expressive dimension is a specific kind of context-shifting.

The immediacy property gives the study of expressives pressing social significance. The story in (1) provides a striking illustration. The school superintendent tries, in that example, to redefine the epithet *nigger* for his own purposes. But the immediacy property ensured that the damage was done as soon as *nigger* escaped his lips. The post-hoc attempt to clarify his intended meaning was thus futile.

This story highlights an additional crucial difference between expressives and more widely recognized speech-acts. As Searle (1969) discusses in detail, speech-acts typically have important preconditions on their successful completion: to successfully apologize, I must speak sincerely; to sentence someone to a prison term, I must have the proper authority; and so forth. With expressives, though, there seem not to be any preconditions at all. Insincerely uttered expressives are still liable to offend. This is an important clue as to the correct theoretical treatment, and it is crucial to the role that these results can play in the popular discourse (section 4).

## 3.6 Repeatability

The contrast between descriptive and expressive content is dramatic when we look at what happens in discourses in which items of this type are used repeatedly. For expressives, the basic observation is that repetition leads to strengthening rather than redundancy. For example, in the following group of sentences, we have a clear heightening of the emotional state of the speaker as we move down the list:

- (28) a. Damn, I left my keys in the car.
  - b. Damn, I left my damn keys in the car.
  - c. Damn, I left my damn keys in the damn car.

Regular descriptive content is quite unlike this. The descriptive ineffability property, discussed just above, makes it hard or impossible to construct minimal pairs with examples like (28) that involve no expressive language, but the following seems telling nonetheless:

(29) <sup>#</sup>I'm angry! I forget my keys. I'm angry! They are in the car. I'm angry!

In multiclause Japanese utterances, the speaker might be given a range of chances in which to direct honorifics at a single individual. One walks a fine line in such cases: too few honorifics, and one can appear disrespectful; too many, and the effect is one of sarcasm or irony.

The theory of context changing outlined in the previous section positions us well to model the strengthening that flows from the repeated use of expressives. For this, we can just take advantage of the natural ordering of the expressive objects, which is determined by their real-number component. Potts 2006b offers a preliminary formalization of the relevant condition.

#### 4 Outreach

The above discussion is quite technical. But it is possible to report on the theory and its results using little or no technical language. Potts 2003a is an early example of this. Here, we illustrate using a specific example:

Language Log, Oct 7, 2003 <a href="http://itre.cis.upenn.edu/~myl/languagelog/archives/000029.html">http://itre.cis.upenn.edu/~myl/languagelog/archives/000029.html</a> Fenimore Cooper, call your office by Geoff Nunberg

In October 2003, the DC District Court ruled that the Washington Redskins can keep their name, on these grounds:

[T]he dictionary evidence only states that the term 'redskin(s)' is 'often offensive,' which, as Pro-Football observes, means that in certain contexts the term 'redskin(s)' was not considered offensive. In fact, the TTAB concluded that the term 'redskin(s)' means both a Native American and the Washington-area professional football team. The fact that it is usually offensive may mean the term is only offensive in one of these contexts.

As linguists studying expressive content, we can contribute in important ways to the debate surrounding stories like this one.

First, we can just clarify the central linguistic claim, which is almost always left implicit by judges, journalists, and other nonspecialists. The central claim of the DC District Court is as follows:

(30) An (expressive content) word is offensive if only if it is offensive on all its uses.

The role of this grant's participants would be to point out that (30) is inconsistent with the conventions of our speech community, especially for expressive content. One of the things we see with examples in (1)–(3) is that the correct linguistic principle is not (30), but rather something closer to (31).

(31) An expressive content word is offense if and only if it is offensive on some of its uses.

We can in addition (and perhaps most importantly) help people to understand *why* expressive content is so powerful as to obey a principle like (31). The immediacy property of section 3.5 is the most important here. When one says *redskin*, one's utterance has an immediate and lasting impact on the context. This impact has very little to do with the intentions of the speaker or the immediate linguistic context. And, thus, it matters hardly at all that *redskin* has a inoffensive meaning within the context of football. This context cannot be reliably assumed to be capable of guiding speakers towards the intended interpretation of the word.

Discussions such as these are important not only for hate speech and cursing, but also in less dramatically expressive words like those we use to describe the mentally and physically disabled. They also lead to discussions of how once inoffensive words can shift to having very expressive meanings, as with the *Negro*, *retarded* and *faggot*.

What's more, it is easy to imagine other instances in which the grant's results might prove important in, say, a courtroom setting. For example, if A assents to B's utterance, he does not thereby assent to its expressive content (by the independence property). This might be important in assessing speakers' commitments and their roles in specific events.

This kind of outreach is not something that we are merely planning for the future. It is ongoing: Potts has twice co-taught (with Lyn Frazier) a general education course at UMass Amherst called Controlling the Discourse. The course contains an extended unit on expressives as they relate to legal and political issues. The course has no prerequisites and is largely nontechnical, but this has not been an obstacle to conveying the associated theoretical ideas.

## 5 Open questions

The descriptive and theoretical work described above is sufficiently articulated to unite a group of researchers and help them to identify expressive content. But it also suggests many new questions and issues.

## 5.1 Acquisition

Children learn to swear early, and they quickly get a feel for the appropriate conditions on use (Jay 2000). This is something of a curiosity from the point of view of linguistic semantics, where this content appears novel and challenging as compared to issues of reference and intensionality, which are well understood but slow to come for learners.

Potts and Roeper (2006) is an initial attempt to resolve this tension between what's easy for semanticists and what's easy for learners. Their starting point is the proper analysis of self-directed uses of root-level small-clauses like *You idiot!*. The theory has ramifications for child language. It correctly predicts which root-level small clauses will survive into adult grammar and which will be blocked by the acquisition of higher functional projections. It also opens the way to an analysis of children's one- and two-word utterances as denoting expressive, rather than straightforwardly propositional, content.

Similarly, Verbuk (2004) reports on experimental work directed at assessing the stages first-language learners proceed through on their way to mastery of multidimensional semantic systems. The techniques are novel, and they hold out much promise for similar studies in the realm of expressive content.

## 5.2 Psycholinguistics

Jay (2000) is a pioneering work on the psychology and sociology of cursing. He reports on numerous cases, dating as far back as the earliest research on aphasia, in which patients with severe damage to the left hemisphere of the brain are nonetheless able to curse well and curse often. He characterizes this expressive language as nonpropositional, and he argues that it is lateralized in the brain's right hemisphere. This characterization fits extremely well with the above theoretical approach, and we believe that study from this perspective might shed light on the nature of semantic processing quite generally.

## 5.3 Computation

In keeping with the spirit of outreach of section 4, we feel that the results of this grant should be accessible to researchers in neighboring fields as well. We are committed to developing theories that are stateable in general logical terms that are easily ported both to specific linguistic theories and to specific computational settings. Our theory of expressive content is, at present, based entirely in objects that correspond to very simple data structures. Potts has recently been working hard to bring a computational perspective to his work on semantics and pragmatics (Potts 2006c,a). The theory of expressives should provide another challenging area for computation.

## 5.4 Linguistic interfaces and extensions

Expressives typically infuse the entire linguistic system of a language. Here, we provide just a very general look at some of the interconnections between expressives and other areas of grammar.

**Grammatical categories** Which categories contain expressives and which can't? Why? (Hendrick 2005; Potts and Roeper 2006).

**Abstract movement** There are often curious misalignments between an expressive's syntactic position and its semantic argument. To what extent is this like well-known scope-shifting phenomena?

**Intervention effects** Expressives often induce strong interventions effects, though the reasons for this are only beginning to be understood (Kratzer 1999; von Fintel 2003; Kaufmann 2004).

**Theory design** Expressives raise foundational questions about theory design (Kaplan 1999), particularly in the context of resource-sensitive approaches (Jacobson 1999, 2000; Asudeh 2004; Potts 2004).

**Evidentiality** Evidentials are generally characterized as perspective-dependent particles that convey something about the speaker's attitude towards the content she is offering. What exactly they convey can be difficult to specify using language not drawn from the evidential system itself (descriptive ineffability; see Faller 2002:3). But to what extent do they manifest the independence property? That is likely to be the central question, and there is no better place to explore it than UMass Amherst, where Linguistics Professors Margaret Speas and Tom Roeper (with Jill de Villiers, Jay Garfield, and Evangeline Parsons-Yazzie) have NSF funding to work on evidentials crosslinguistically. With our project and theirs going in tandem, important, largescale results can be obtained.

**Dynamics** If the above theoretical treatment is on the right track, then expressives are dynamic at the subsentential level and thus count as a new form of support for the full-fledged dynamics of Bittner (2001, 2003). Such approaches can also make good on the intuition behind *procedural meanings*, as discussed within the context of Relevance Theory (see especially Blakemore 2001).

## 6 Work plan

## Year 1: Exploring the factual domain

**Basic research** The budget for this year allows for a total of four graduate student positions. These students will begin to achieve close descriptions of how specific languages access the domain of expressive content. Which languages we pick will largely be a function of the students' areas of expertise, but we feel it is crucial to obtain a better understanding of the honorific systems of Japanese and Korean. Such studies will lead naturally to comparative work, and they will greatly inform work on pronouns of address (formal and familiar) in languages like German, Russian, and

<sup>&</sup>lt;sup>13</sup>Epistemology and Indexicality in English, Tibetan and Navajo; NSF SBE#0527509.

French. As suggested by the work mentioned in section ??, the requisite technical and linguistic knowledge is already present in the UMass Amherst department.

The students' work will feed questions of typology, and it will lead to papers and presentations, thereby ensuring that the work is heard in a public forum. (UMass Amherst Linguistics students have an excellent track record when it comes to presentations.)

Continued work on the theory of expressives The grant participants will continue to refine and expand the theory of expressives described in section 3. Potts has a contract with Oxford University Press to write a book called *Dimensions of Meaning*. Expressives are a central theme of this work. Potts will spend the first year of the grant researching this work, consulting often with Non Co-PI Senior Personnel Kratzer and Speas about aspects of the project that are intimately related to their work.

**Outreach** We have already begun to report on our results to audiences of nonspecialists, as described at the end of section 4. Potts will continue that teaching, and he will contribute posts on the topic to Language Log, a group weblog that has recently seen tremendous growth in its popularity (as measured by site-visit numbers). There is probably no more effective regular forum for reporting to the public on linguistic research.

We will strive to publicize the work at traditional venues for theoretical linguistics (e.g., the Annual Meeting of the Linguistic Society of America) as well as at conferences with different emphases (e.g., the Annual Meeting of the International Association of Forensic Linguists).

#### **Year 2: Initial theoretical formulations**

**Basic research** After the work of year 1, we will be able to explore more systematically the connections between expressives and other areas of grammar. The graduate student researchers will extend the basic findings into new domains at the interfaces between the subfields of theoretical linguistics. Section 5 points the way to this goal. Arguably the most important extension is the relationship between expressives and evidentials. Speas's ongoing NSF grant will ensure that the department has a strong, diverse knowledge-base for research on evidentials.

**Interdisciplinary work** At this stage, it is important to publicize the general theoretical significance of expressive content. So the work in year 2 will focus on engaging related fields (psycholinguistics, acquisition, computation). Potts has already laid the groundwork for such studies: Potts and Roeper 2006; Potts 2006a.

**Continued outreach** We will continue to find applications of our ideas in current political and social debates, and then try to publicize these ideas outside of the traditional academic outlets.

**Potts's book** Potts will devote much of year 2 to drafting his forthcoming *Dimensions of Meaning* for Oxford University Press. This project essentially ensures that the grant will produce at least one book-length publication. Without the grant, it will be hard for Potts to gather the resource and results that the project demands.

## Year 3: Continued theoretical formulations and spreading the word

**Interdisciplinary** After two years of collaborative work, we should be able to see the shape of the theory, and its relationship to neighboring fields should be increasingly evident. We will begin to incorporate the results of recent related research, such as Speas and Roeper's fieldwork and acquisition studies on evidentials.

**Publicizing the results** We will submit a separate proposal to organize a workshop at UMass Amherst on expressive content and context dependency. Such workshops are an invaluable place for exchanging ideas and getting a feel for the way that others are thinking about the issues. They also signal to the rest of the linguistics community that expressive content is a fruitful area of research worthy of sustained attention.

## 7 In sum

The above description shows that a careful investigation of expressive meanings gives us an excellent window into fundamental differences in the class of linguistic meanings. So far, we have yet to be left helpless by the theory when confronted with a new kind of expressive meaning. The difficult task is, it seems, the empirical one: quite often, we are unsure which of the options is the correct path forward. These matters can be settled only through extensive, long-term investigation in the area spanning the domains of semantics and pragmatics.

## References

Anand, Pranav and Andrew Nevins. 2004. Shifty operators in changing contexts. In Watanabe and Young (2004), 20–37.

Aoun, Joseph and Lina Choueiri. 2000. Epithets. *Natural Language and Linguistic Theory* 18(1):1–39.

Aoun, Joseph, Lina Choueiri, and Norbert Hornstein. 2001. Resumption, movement, and derivational economy. *Linguistic Inquiry* 32(3):371–403.

Asada, Hideko. 1996. *Keigo Manyuaru. A Manual for Using Honorifics*. Tokyo: Nan'undo. Asudeh, Ash. 2004. *Resumption as Resource Management*. Ph.D. thesis, Stanford University.

- Asudeh, Ash and Christopher Potts. 2004. Honorifics: Interpreted and interpretable, Paper presented at the Phi Workshop, Montreal, August 28–30.
- Bach, Kent. 1999. The myth of conventional implicature. *Linguistics and Philosophy* 22(4):367–421.
- Banks, Stephen P. 1989. Power pronouns and the language of intercultural understanding. In Stella Ting-Toomey and Felipe Korzenny, eds., *Language*, *Communication and Culture: Current Directions*, 180–198. Newbury Park, CA: Sage.
- Bartholomew, Doris A. and Earl Brockway. 1988. Honorific morphology in North Puebla Aztec. In J. Kathryn Josserand and Karen Dakin, eds., *Smoke and mist: Mesoamerican studies in memory of Thelma D. Sullivan*, 449–60. Oxford: British Archaeological Reports.
- Bayraktaroglu, Arin and Maria Sifianou. 2001. *Linguistic Politeness Across Boundaries: The case of Greek and Turkish*. Pragmatics and Beyond. Amsterdam: John Benjamins.
- Bittner, Maria. 2001. Surface composition as bridging. Journal of Semantics 18(2):127–177.
- Bittner, Maria. 2003. Word order and incremental update. In *Proceedings from CLS 39*. Chicago: Chicago Linguistic Society.
- Blakemore, Diane. 2001. Relevance and Linguistic Meaning: The Semantics and Pragmatics of Discourse Markers. Number 99 in Cambridge Studies in Linguistics. Cambridge: Cambridge University Press.
- Büring, Daniel. 1999. Topic. In Peter Bosch and Rob van der Sandt, eds., *Focus Linguistic*, *Cognitive*, *and Computational Perspectives*, 142–165. Cambridge: Cambridge University Press.
- Carnap, Rudolf. 1935. Philosophy and Logical Syntax. London: Kegan Paul.
- Chierchia, Gennaro. 2004. Scalar implicatures, polarity phenomena, and the syntax/pragmatics interface. In Adriana Belletti, ed., *Structures and Beyond: The Cartography of Syntactic Structures*, Volume 3, 39–103. New York: Oxford University Press. [The manuscript began circulating in 2001].
- Corazza. 2005. On epithets qua attributive anaphors. *Journal of Linguistics* 41(1):1–32.
- Cruse, D. A. 1986. Lexical Semantics. Cambridge: Cambridge University Press.
- Dekker, Paul. 2002. A proper architecture for presupposition and quantification, Ms., University of Amsterdam.
- Enç, Mürvet. 1986. Towards a referential analysis of temporal expressions. *Linguistics and Philosophy* 9(4):405–426.
- Faller, Martina. 2002. Evidentiality in Cuzco Quechua. Ph.D. thesis, Stanford.
- Frege, Gottlob. 1979. *Posthumous Writings*. Oxford: Basil Blackwell. Translated by Peter Long and Roger White.
- Harada, S. I. 1976. Honorifics. In Masayoshi Shibatani, ed., *Syntax and Semantics*, Volume 5: Japanese Generative Grammar, 499–561. New York: Academic Press.
- Hendrick, Randall. 2005. Tongan determiners and semantic composition. *Language* 81(4):907–926.
- Hill, Jane H. and Kenneth C. Hill. 1978. Honorific usage in Modern Nahuatl: The expression of

- social distance and respect in the Nahuatl of the Malinche Volcano Area. *Language* 54(1):123–155.
- Huddleston, Rodney and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Hwang, Juck-Ryoon. 1990. 'Deference' versus 'politeness' in Korean speech. *International Journal of the Socioligy of Language* 41–55.
- Irvine, Judith T. 1995. Honorifics. In Jan-Ola Östman Jef Verschueren and Jan Blommaert, eds., *Handbook of Pragmatics*. Amsterdam: John Benjamins.
- Jacobson, Pauline. 1999. Towards a variable-free semantics. *Linguistics and Philosophy* 22(2):117–184.
- Jacobson, Pauline. 2000. Paycheck pronouns, Bach-Peters sentences, and variable-free semantics. *Natural Language Semantics* 8(2):77–155.
- Jay, Timothy. 2000. Why We Curse: A Neuro-Psycho-Social Theory of Speech. Philadel-phia/Amsterdam: John Benjamins.
- Jensen, John B. 1981. Forms of address in Brazilian Portuguese: Standard European or Oriental honorifes. In Bernard Bichakjian, ed., *From Linguistics to Literature: Romance Studies Offered to Francis Millet Rogers*, 45–66. Amsterdam: John Benjamins.
- Kadowaki, Makoto and Shigeto Kawahara, eds. 2003. *Proceedings of the 33rd North East Linguistics Society Meeting*. Amherst, MA: GLSA.
- Kaplan, David. 1989. Demonstratives: An essay on the semantics, logic, metaphysics, and epistemology of demonstratives and other indexicals. In Joseph Almog, John Perry, and Howard Wettstein, eds., *Themes from Kaplan*, 481–614. New York: Oxford University Press. [Versions of this paper began circulating in 1971].
- Kaplan, David. 1999. What is meaning? Explorations in the theory of *Meaning as Use*. Brief version draft 1, Ms., UCLA.
- Karttunen, Lauri. 1973. Presuppositions and compound sentences. *Linguistic Inquiry* 4(2):169–193.
- Kaufmann, Stefan. 2004. A modal analysis of expressive meaning: German *ja* under quantifiers, Paper presented at Kōbe Shōin University, Kyoto.
- Kikuchi, Yasuto. 1994. Keigo [Honorifics]. Tokyo: Kadokawa Shoten.
- Kratzer, Angelika. 1999. Beyond *ouch* and *oops*: How descriptive and expressive meaning interact. URL http://semanticsarchive.net/Archive/WEwNGUyO/, A comment on David Kaplan's paper, Cornell Conference on Theories of Context Dependency.
- Lasersohn, Peter. 1999. Pragmatic halos. Language 75(3):522-551.
- Lasersohn, Peter. 2005. Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy* 28(6):643–686.
- Levinson, Stephen C. 2000. Presumptive Meanings: The Theory of Generalized Conversational Implicature. Cambridge, MA: MIT Press.
- Macià, Josep. 2002. Presuposicion y significado expresivo. Theoria: Revista de Teoria, Historia y

- Fundamentos de la Ciencia 3(45):499–513.
- McCready, Eric. 2004. Two Japanese adverbials and expressive content. In Kazuha Watanabe and Robert B. Young, eds., *Proceedings of the 14th Conference on Semantics and Linguistic Theory*, 163–178. Ithaca, NY: CLC Publications.
- Neustupny, Jiri V. 1986. Language and society: The case of Japanese politeness. In Joshua A. Fishman, ed., *The Fergusonian Impact: in Honor of Charles A. Ferguson on the Occasion of his 65th Birthday*, 59–71. Amsterdam: de Gruyter.
- Potts, Christopher. 2003a. The conventions for expressive content words. URL http://itre.cis.upenn.edu/~myl/languagelog/archives/000035.html, Posting at The Language Log.
- Potts, Christopher. 2003b. Expressive content as conventional implicature. In Kadowaki and Kawahara (2003), 303–322.
- Potts, Christopher. 2004. The dimensions of quotation. In Chris Barker and Polly Jacobson, eds., *Proceedings from the Workshop on Direct Compositionality*. Cambridge, MA: MIT Press.
- Potts, Christopher. 2005. *The Logic of Conventional Implicatures*. Oxford Studies in Theoretical Linguistics. Oxford: Oxford University Press. [Revised 2003 UC Santa Cruz PhD thesis].
- Potts, Christopher. 2006a. Comp4ling: Computational tools for linguistic research. http://people.umass.edu/potts/computation/.
- Potts, Christopher. 2006b. The expressive dimension. URL http://semanticsarchive.net/Archive/TJhZDgwZ/, Submitted to Theoretical Linguistics.
- Potts, Christopher. 2006c. Integrated pragmatic values: A Perl/CGI implementation. http://semanticsarchive.net/Archive/zM4YmYwM/.
- Potts, Christopher and Shigeto Kawahara. 2004. The performative content of Japanese honorifics. In Watanabe and Young (2004), 235–254.
- Potts, Christopher and Tom Roeper. 2006. The narrowing acquisition path: From declarative to expressive small clauses. In Ljiljana Progovac, Kate Paesani, Eugenia Casielles-Suárez, and Ellen Barton, eds., *The Syntax of Nonsententials: Multi-Disciplinary Perspectives*, 183–201. Amsterdam: John Benjamins.
- Prideaux, Gary Dean. 1970. *The Syntax of Japanese honorifics*. Number 102 in Janua linguarum. Series practica. The Hague: Mouton.
- Quang, Phuc Dong. 1971. English sentences without overt grammatical subject. In Arnold M. Zwicky, Peter H. Salus, Robert I. Binnick, and Anthony L. Vanek, eds., *Studies out in Left Field: Defamatory Essays Presented to James D. McCawley on the Occasion of his 33rd or 34th birthday*, 3–10. Amsterdam: John Benjamins.
- Rooth, Mats. 1985. Association with Focus. Ph.D. thesis, University of Massachusetts, Amherst.
- Rooth, Mats. 1992. A theory of focus interpretation. Natural Language Semantics 1(1):75-116.
- Sakuma, Kanae. 1940. *Gendai Nihongohoo no Kenkyuu*. [An Investigation into the Use of Modern Japanese]. Tokyo: Reprinted by Kuroshio Publishers, 1983.
- Schlenker, Philippe. 2003. A plea for monsters. Linguistics and Philosophy 26(1):29–120.

- Searle, John R. 1969. *Speech Acts: An Essay in the Philosophy of Language*. Cambridge: Cambridge University Press.
- Sells, Peter and Jong-Bok Kim. 2006. Honorification in Korean as expressive meaning. *Korean Linguistics*.
- Sharvit, Yael. 1998. Individual concepts and attitude reports. In Devon Strolovitch and Aaron Lawson, eds., *Proceedings from SALT 8*, 233–248. Ithaca, NY: CLC Publications.
- Sharvit, Yael. 2004. Free indirect discourse and 'de re' pronouns. In Watanabe and Young (2004), 305–322.
- Slama-Casacu, Tatiana. 1986. The concept of politeness and its formulas in the Romanian language. In Joshua A. Fishman, ed., *The Fergusonian Impact: In Honor of Charles A. Ferguson on the Occasion of his 65th Birthday*, 35–38. Berlin: de Gruyter.
- Soames, Scott. 2002. Beyond Rigidity. Oxford: Oxford University Press.
- von Stechow, Arnim. 2003. Binding by verbs: Tense, person and mood under attitudes. In Kadowaki and Kawahara (2003).
- Tokieda, Makoto. 1940. Kokugogaku Genron [Principles of Japanese Linguistics]. Tokyo: Iwanami.
- Tsujimura, Toshiki. 1978. Keigo to hikeigo [Honorifics and anti-honorifics]. In Yasuo Kitahara, ed., *Keigo: Ronshuu Nihongo Kenkyuu 9* [Honorifics: Papers on Research in Japanese], 218–231. Tokyo: Yuuseido.
- Verbuk, Anna. 2004. Evidence for contrastive focus in Russian, Handout for a talk presented at the Intonation Matters Workshop, UMass Amherst.
- von Fintel, Kai. 2003. Epistemic modals and conditionals revisited, UMass Linguistics Colloquium.
- Watanabe, Kazuha and Robert B. Young, eds. 2004. *Proceedings of the 14th Conference on Semantics and Linguistic Theory*. Ithaca, NY: CLC Publications.
- Williamson, Timothy. 2007. Reference, inference and the semantics of pejoratives. In Joseph Almog and Paolo Leonardi, eds., *Festschrift for David Kaplan*. Oxford: Oxford University Press.
- Zimmermann, Thomas Ede. 1991. Kontextabhängigkeit. In Arnim von Stechow and Dieter Wunderlich, eds., *Semantik/Semantics: Ein internationales Handbuch der zeitgenössischen Forschung*, 156–229. Berlin/New York: Walter de Gruyter.