Use-conditional meaning and the semantics of pragmaticalization

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Abstract. Pragmaticalization is the diachronic process by which propositional, truth-conditional semantic content develops into expressive, use-conditional content. Against the background of a multidimensional hybrid semantics, which employs both truth- and use-conditions to capture the entire conventional meaning of natural language expressions, this change can be understood as a diachronic type shift from truth-conditional to use-conditional meaning. We suggest that in general such shifts do not happen directly, but via an intermediate stage in which a 2-dimensional expression with mixed content is formed, which in a final stage may develop into pure use-conditional content. These concepts are applied to two cases of pragmaticalization: the antihonorific aspectual marker *shimau* in Japanese, and the expressive negation marker *neenu* in Miyara Yaeyaman, a related language of the Southern Ryukyus. As the second case study shows, pragmaticalization may also involve a process which we call pragmatic fission, in which a mixed expression splits into two separate items, leading to a lexical ambiguity between a plain truth-conditional expression and a purely use-conditional item.

Keywords: semantic change, pragmaticalization, expressives, use-conditional meaning, multidimensional semantics, expressive negation, Japanese, Ryukyuan, Miyara Yaeyaman

1. Grammaticalization and pragmaticalization

Grammaticalization, the development of grammatical categories out of lexical material, is one of the best-studied factors of syntactic and semantic change (see, amongst many others, (Diewald and Wischer 2002; Hopper and Traugott 2003; Lehmann 1995; Narrog and Heine 2011; Traugott and Heine 1991). Diachronic studies in the last four decades have documented many examples of grammaticalization, and detected various common traits and paths along which expressions may be grammaticalized. Focusing just on the semantic aspects of grammaticalization, we can say that when an element grammaticalizes, its use is less and less determined by semantic factors, and more and more by the grammatical features of its linguistic context. A non-grammaticalized lexical expression is chosen purely on the basis of whether the denotation of that expression fits what the speaker wants to say, and in this sense, its use is entirely optional. In contrast, the use of a fully grammaticalized expression is completely determined by its syntactic context.

For instance, consider the difference between the lexical transitive verb *have* and the grammaticalized auxiliary verb *have*. Whether the speaker uses lexical *have* depends purely on what she intends to communicate and whether the semantics of *have* fit that intent. So, in addition to *have*, there are many possible items that could fill the gap in the following sentence:

(1)   I ___ a book on the history of Ryukyuan.   *have, had, own, want, discovered, bought, …*

The appearance of the auxiliary *have*, in contrast, is determined by the construction in which it is used. That is, while there are many possibilities for the gap in (1), *have* is the only one possible in the following example:

(2)   For a year, I ___ been searching for a book on the history of Ryukyuan.

*have, had, *own, *am, *will, . . .*

In this respect we can say that, in general, grammaticalization semantically proceeds from semantics to grammar/syntax.

(3)   *Semantic change in grammaticalization:* propositional > grammatical meaning

The purpose of this rather lengthy introduction to the kind of semantic change that occurs with grammaticalization is to demonstrate how it differs from another kind of semantic change, which is referred to as *subjectification* (Traugott 1995) or *pragmaticalization* (Auer and Günthner 2005; Diewald 2011); in what follows we use the latter term.[1] According to Traugott, subjectification/pragmaticalization is characterized by "the development of a grammatically identifiable expression of speaker belief or speaker attitude to what is said." (Traugott 1995, 32) We take a broader view that is not necessarily tied to beliefs or attitudes, and think of pragmaticalization as the diachronic process by which truth-conditional expressions develop into non-truth-conditional ones, like, for instance, expressives (see Auer and Günthner 2005). Expressions at the end of a pragmaticalization path lose their original truth-conditional meanings. Nevertheless, they continue to express conventional semantic content, which can be called *use-conditional* content, following Recanati (2004, 447). The main difference between the semantic change induced by grammaticalization and the one observable in pragmaticalization is thus that the former goes from the propositional "down" to the grammatical level, while the latter goes from the propositional "up" into expressive, use-conditional meaning (Traugott 2003, 633).

(4)   *Semantic change in pragmaticalization:* propositional > expressive meaning

There are many examples of expressions whose meanings have become pragmaticalized in the sense described above, although they are not always as systematically discussed under the umbrella of pragmaticalization as cases of grammaticalization are. As one of the most straightforward cases, consider the development of expressives (in the narrow sense) out of descriptive expressions. Cases of pejoration are among the best-known examples in this category.

(5)   descriptive nouns > expressives
          a.   *boor* 'countryman, farmer' > 'crude person'   (Engl.)
          b.   *wīp* 'woman' > *weib* 'woman.PEJ'   (Germ.)

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[1] Note that these two concepts are not necessarily synonymous or even overlapping, depending on one's definition. In addition, there is also some dispute about whether subjectification and pragmaticalization are at odds with grammaticalization or if they are subtypes of grammaticalization. See (Diewald 2011) for an explicit discussion, as well as the references therein.

Similar cases can be seen in the development of originally descriptive items, like *shit* or *damn*, into interjections or expressive adjectives without any descriptive meaning at all. In (6a) and (7a), both expressions, while arguably already having an expressive component (conventionalized or not), clearly contribute to truth-conditional content as well. In (6b) and (7b), these expressions have lost this descriptive component, and contribute only expressive, use-conditional meaning.[2]

(6)　　a.　Take care; there is a lot of dog **shit** on the street here.
　　　　b.　**Shit**, I forgot my keys!

(7)　　a.　You are **damned** if you do, damned if you don't.
　　　　b.　The **damn** car is not starting.

There are also cases of pragmaticalization that do not result in expressives in the narrow sense. For instance, modal particles in German, which encode non-truth-conditional, discourse oriented meaning, developed historically out of truth-conditional adjectives or adverbs (Abraham 1991; Autenrieth 2002, 2005; Diewald 2011; Hentschel 1986; Wegener 2002).

(8)　　adverbs/adjectives > modal particles　　　　　　　　　　　　　　　　(Germ.)
　　　　a.　*eben* 'flat' > 'just, exactly'
　　　　b.　*schon* 'already' > 'somewhat'

Another category of expressions that often result from pragmaticalization is the broad category of discourse markers; sources for them lie in many different parts of speech, including adverbs, conjunction particles, or even entire matrix clauses (Gohl and Günthner 1999; Auer and Günthner 2005).

(9)　　*X* > discourse markers　　　　　　　　　　　　　　　　　　　　　(Germ.)
　　　　a.　adverb > DM: *jedenfalls* 'anyway'
　　　　b.　conjunction > DM: *und* 'and, so'
　　　　c.　subjunction > DM: *weil, obwohl* 'although'
　　　　d.　matrix clause > DM: *Ich mein'* 'I mean'

The goal of this paper is to analyze pragmaticalization from a formal semantic point of view. In order to do so, we connect the phenomenon of pragmaticalization to recent developments in the analysis of expressive content using multidimensional semantics (Potts 2005; McCready 2010; Gutzmann 2011, 2015; a.o). We model the change from truth-conditional to non-truth-conditional meaning, as illustrated in (4) and instantiated by the examples above, in a type-based, hybrid semantic framework. The basic idea is that the observed shifts find a natural formalization in terms of a diachronic semantic type shift. That is, an original expression that is typed truth-conditionally comes to have, via pragmaticalization, a use-conditional type. This not only captures the semantic change during pragmaticalization, but predicts many of the special properties of the resulting pragmaticalized elements, like their often peripheral position, their scope, and their resistance to

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　　[2]Here, and throughout the paper, we use **boldface** to highlight relevant aspects of example sentences.

being targeted by negation. We further argue that the path from truth-conditional to use-conditional meaning does not generally happen directly, but proceeds through an intermediate stage in which the item functions as a *mixed expression*, contributing both truth-conditional and use-conditional meaning simultaneously. This intermediate stage in the pragmaticalization path relies on and provides indirect support for the existence of mixed use-conditional items (Gutzmann 2011; Mc-Cready 2010; *pace* (Potts 2005).

In the next section we briefly sketch the formal ideas that our analysis of pragmaticalization relies on, without going into the technical details of multidimensional semantics.[3] With the formal framework in place, we suggest in Section 3 how pragmaticalization may be construed as a diachronic type shift involving a mixed use-conditional item as an intermediate stage. We then present two case studies of pragmaticalization in Section 4 and Section 5. First, we look at the development of the "anti-honorific" *shimau* construction in Japanese, which we argue exemplifies the second stage of pragmaticalization discussed above, in which an original truth-conditional expression becomes a mixed expression, contributing both its original truth-conditional meaning and a pragmaticalized use-conditional meaning simultaneously. We then discuss the case of *expressive negation* in Miyara Yaeyaman, which instantiates a pragmaticalization path that we label *pragmatic fission*: instead of developing into a purely expressive item, the intermediate mixed expression splits into two separate items, one truth-conditional and the other use-conditional, thereby leading to a case of lexical ambiguity. We then show that pragmaticalization and pragmatic fission can target just one part of an expression's truth-conditional content, leading to a mixed expression rather than a pure expressive at the end of the pragmaticalization path.

2. Hybrid semantics

The core ideas of the multidimensional semantic framework we employ rest on Kaplan's (1999) influential underground manuscript on the meaning of *ouch* and *oops*: "For certain expressions of natural language, a correct Semantic Theory would state *rules of use* rather than something like a concept expressed." (Kaplan 1999, 6, our emphasis). However, in contrast to more radical theories under the umbrella slogan of "meaning as use", his idea is to use a use-conditional perspective to *supplement* truth-conditional semantics – not to replace it entirely – in order to extend formal semantic methods to expressions and meaning aspects that, from a purely truth-conditional perspective, are considered to fall outside the scope of formal semantics. For illustration of the kind of meaning aspects that can be studied within such an extended semantic theory, consider the following minimal pair (Frege 1979, 140).

(10)   a.   This **dog** howled the whole night.
        b.   This **cur** howled the whole night.

From a purely truth-conditional perspective, (10a) and (10b) have the same semantic content, as both are true in just the same situations. However, (10b) expresses a certain kind of disdain, which

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[3]For a recent in-depth discussion of multidimensional semantics, see Gutzmann (2015).

is absent from (10a) and which is not captured by simply stating the sentence's truth-conditions. However — and this an important motivation for Kaplan's suggestions — the negative attitude in (10b) is associated with the expression *cur* by *linguistic convention*, and hence should be regarded as a *semantic* aspect of meaning instead of a pragmatic one. In order to capture such aspects of meaning, we enhance the truth-conditional perspective by adding an additional layer of use-conditions to the semantics. In order to capture the entire conventional (that is, semantic) meaning of (10b), we need to state both its truth- *and* use-conditions.

(11)   a.   "The cur howled" is **true** if the dog howled.
        b.   "The cur howled" is **felicitously used** if the speaker feels negatively about the dog.

We call expressions like *cur* that contribute simultaneously to both meaning dimensions *hybrid* expressions. Besides lexically hybrid expressions like *cur*, a complex expression may be compositionally hybrid, as shown in the following variant of (10b), in which the negative attitude is conveyed by the expressive adjective *damn* instead of by *cur*.

(12)   This **damn** dog howled the whole night.

Hybrid semantic expressions like those described above require a semantic framework that employs both use- and truth-conditions, a semantics that we accordingly call hybrid semantics. Within such a semantics, natural language sentences do not just receive a truth-value (true or false, 1 or 0), but also a use-value (*felicitous* or *infelicitous*, for which we use the check mark $\checkmark$ and the lightning bolt $\lightning$, respectively).

(13)   Hybrid semantics: $\langle 1, \checkmark \rangle$ $\langle 1, \lightning \rangle$ $\langle 0, \checkmark \rangle$ $\langle 0, \lightning \rangle$

Now, while introducing these new use-values is itself only a superficial formal device, it allows us to use the standard tools of formal semantics to give proper denotations for use-conditional content in a manner parallel to that of truth-conditional content. To see how, consider a standard truth-conditional clause alongside its use-conditional analog:

(T)   *Truth-conditions*   (U)   *Use-conditions*
       $_1$ "Snow is white" $_1$ "Oops!"
       $_2$ is **true**, $_2$ is **felicitously used**,
       $_3$ iff snow is white. $_3$ iff the speaker observed a minor mishap.

In both conditions, a natural language expression, in the first line, is connected with a condition in the third line, which is supposed to capture its meaning. What differs is the kind of connection — the "mode of expression", as Kaplan calls it. In (T), the connection is established by the notion of truth, while in (U) it is felicitous use that connects the expression and the condition. The conditions in both (T) and (U) can either be the case or not, which enables us to extend the standard formal tools developed for the evaluation of truth-conditional content (T) to the evaluation of use-conditional content (U). That is, just as (T) leads us to think of the proposition expressed by "Snow is white" as the set of *worlds* in which that sentence true, we can construe the use-conditional proposition expressed by "Oops!" as the set of *contexts* in which the speaker observed a minor

mishap (Kaplan 1999, 17). Using superscripts t and u to distinguish truth-conditional (tc) from use-conditional (uc) content, we can state the semantics to which (T) and (U) above lead us more precisely as follows:

(14)   *tc-content: set of worlds*
  a. $\|\text{Snow is white}\|^t = \{w: \text{snow is white in } w\}$
  b. $\|\text{Snow is white}\|^t = 1$, if $w_@ \in \{w: \text{snow is white in } w\}$

(15)   *uc-content: set of contexts*
  a. $\|\text{Oops}\|^u = \{c: c_S \text{ observed a minor mishap in } c_w\}$
  b. $\|\text{Oops}\|^u = \checkmark$, if $c_@ \in \{c: c_S \text{ observed a minor mishap in } c_w\}$

These basic ideas of hybrid semantics are rather independent of the particular formalization used, and can be implemented in a variety of frameworks. A very influential approach is the type-driven system $\mathcal{L}_{CI}$ developed by Potts (2005), which however has been argued to be too restrictive to handle certain varieties of use-conditional content. Most importantly, it does not allow for *mixed* use-conditional items (UCIs), expressions that lexically encode both truth- and use-conditional meaning, as seen with the word *cur* in (10b). Such mixed UCIs are captured by other systems that extend the original $\mathcal{L}_{CI}$ system (Gutzmann 2011; McCready 2010). As we argue below, such mixed UCIs seem to play an important role in pragmaticalization, as they provide an intermediate stage of semantic change between purely truth-conditional and a purely use-conditional items. Although for our purposes a system like that of McCready (2010) or Gutzmann (2011) will suffice, these extended systems still have problems regarding quantificational constructions and constructions invoking abstraction, which however can be overcome by more radical modifications (Gutzmann 2015). We leave aside these formal details, as we do not dive too deeply into question about the actual semantic composition of use-conditional content. We argue only that we need a system that allows for mixed UCI content, and propose lexical entries with mixed content; the formal details of the proposal can be modified to suit the particular formal system that one is working with.

In all systems in the $\mathcal{L}_{CI}$-tradition, the distinction between truth- and use-conditional content is implemented by a distinction in semantic types. The core idea is to have one additional basic type which denotes use-conditions, analogous to the truth-conditional type t (or, more precisely, type $\langle s, t \rangle$, the type of propositions). We use type u as the type for use-conditional content. From this basic type, we can build complex use-conditional types in the usual recursive manner, the important restriction being that use-conditional types can only be in the output of a complex type. The only other device we need for the purposes of this paper is the diamond operator, which is used to build mixed UCIs. For instance, we can translate *cur* as follows, where **bad** denotes a negative speaker attitude.

(16) $[\![cur]\!] = \textbf{dog} : \langle e, t \rangle \ \blacklozenge \ \textbf{bad} : \langle e, u \rangle$

Even though there is much more to be said about how the compositional system, we will leave it with these short remarks. Our concern in this paper is with the lexical semantics of certain

expressions and how their semantics change over time. For this purpose, it is sufficient that lexically hybrid expressions are translated into diamond-objects like (16). For an overview of Potts's (2005) $\mathcal{L}_{CI}$ and its extensions, see Chapter 3 of Gutzmann 2015.

3. Pragmaticalization in hybrid semantics

Connecting the considerations from the previous section back to the phenomenon of pragmaticalization, our thesis is that, from the point of view of semantic change, pragmaticalization can be understood as a diachronic type-shift from truth-conditional to use-conditional content. Consider again the case of the English pejorative *boor*, which developed from a truth-conditional expression denoting farmers to a use-conditional pejorative expressing a negative evaluation of the person in question as being a crude person. We argue that the original expression had a simple truth-conditional type, which then shifted to a use-conditional type in the pragmaticalized version, basically by switching the output type t a u.

(17)   *Pejoration as a semantic typeshift*

   $\mathbf{boor} : \langle e, t \rangle \; > \; \mathbf{boor}_{ex} : \langle e, u \rangle$

We use $\mathbf{boor}_{ex}$ here as a substitute for the pragmaticalized content, i.e. the negative attitude. The pragmaticalization path in (17), going from a truth- to a use-conditional predicate, is an instantiation of what we think is the most simple kind of type shift to be found in pragmaticalization, namely those type shifts in which the output type changes from t to u, the rest of the type remaining unaffected.

(18)   *Most simple pragmaticalization pattern*

   $A : \langle \sigma, t \rangle \; > \; A_{ex} : \langle \sigma, u \rangle$

However, contrary to what such a schematization may suggest, such diachronic type shifts do not happen suddenly. Instead, they evolve through complex processes and in specific contexts that support such changes (Traugott 2003. Typically, the pejorative character of expressions like that in (17) starts out as a conversational implicature that is derived in specific contexts and is mostly likely driven by extra-linguistic factors. For example, in a social context in which farmers were considered to be "uncivilized", referring to someone as a *boor* would invite the inference that that person is also crude. Given a sufficiently high frequency, these inferences may be conventionalized and become part of an expression's lexical content, so that they do not need to be derived on conversational grounds anymore. That is, a conversational implicature that is generated with great enough regularity can become conventionalized, giving rise to a conventional implicature. The original 1-dimensional expression generating a conversational implicature gets conventionalized into a 2-dimensional, mixed UCI, with the conventionalized implicature encoded as use-conditional content. At an optional final stage, the original meaning may then be bleached, so that only the negative use-conditional component remains from the originally descriptive predicate, and we end up with what can be called an expletive UCI (Gutzmann 2013). In the case of *boor*, the second stage would be an expression that continues to truth-conditionally denote farmers, while simultaneously conveying the speaker's negative attitude, while at the third stage it loses its original

connection to farmers completely:

(19)   *Two-step pragmaticalization of* boor

$$\textbf{boor} : \langle e,t \rangle \; > \; \textbf{boor} : \langle e,t \rangle \blacklozenge \textbf{boor}_{ex} : \langle e,u \rangle \; > \; \textbf{boor}_{ex} : \langle e,u \rangle$$

From this simple example, we extract the following schematic pattern that characterizes in formal terms the semantic change that happens during pragmaticalization, where A is some truth-conditional content and A_{ex} is the derived use-conditional content.

(20) $A \; > \; A \blacklozenge A_{ex} \; > \; A_{ex}$

Unsurprisingly, this two-step pragmaticalization pattern is just a specific instance of the so-called "overlap model" proposed for grammaticalization (Heine 2003, 590).

(21)   *Two-step grammaticalization*

$$A \; > \; A, B \; > \; B$$

As the case studies in the next section will reveal, there is in addition to the straightforward semantic bleaching process sketched above another possibility for how pragmaticalization may proceed after the second stage of a mixed UCI is reached. Instead of stripping away the truth-conditional content to leave a purely use-conditional expression at stage three, the expression may instead split into two separate expressions. One of these would be the purely use-conditional expletive UCI that the pattern in (20) delivers, whereas the other would be the plain truth-conditional expression that started the entire process. We call this process *pragmatic fission*:

(22)   *Pragmatic fission*

$$A \; > \; A \blacklozenge A_{ex} \; > \; \begin{cases} A \\ A_{ex} \end{cases}$$

Instead of creating a single purely use-conditional item, pragmatic fission leads to a lexical ambiguity that restores the original, truth-conditional component alongside the new, pragmaticalized expression. We will also see that in some cases pragmatic fission targets only one part of the truth-conditional content of the original expression, giving rise to what we call partial pragmatic fission. This may be schematized as follow.

(23)   *Partial pragmatic fission*

$$(A \; \& \; B) \; > \; (A \; \& \; B) \blacklozenge B_{ex} \; > \; \begin{cases} (A \; \& \; B) \\ A \blacklozenge B_{ex} \end{cases}$$

In the following two sections we apply the ideas developed in this and the previous section to two case studies from Japanese and Ryukyuan. In Japanese, the verbal auxiliary *shimau* serves to simultaneously express completive aspectual semantics and a negative evaluative stance on the part of the speaker. This construction, we argue, represents Stage 2 of the pragmaticalization path described above, in which a conversational implicature arising from the construction's original aspec-

tual meaning has conventionalized, so that *shimau* simultaneously contributes a truth-conditional aspectual meaning and a use-conditional negative evaluative meaning.

The second case study comes from Yaeyama Ryukyuan, where the negative morpheme *neenu* can contribute either logical or pragmatic negation to a verb. We argue that this ambiguity results from pragmatic fission, in which a Stage 2 morpheme splits at Stage 3, giving rise to an ambigious morpheme expressing *either* truth-conditional content *or* use-conditional content, but not both simultaneously. Like Japanese *shimau*, Ryukyuan *neenu* contributes truth-conditional aspectual content in addition to negativity; pragmatic negation in Ryukyuan is thus also a case of mixed content.

4. Case Study 1: Japanese *shimau / chimau*

We first look at the Japanese completive aspect construction *V-te shimau*, in which the infinitival *te* form of the verb combines with the aspectual auxiliary *shimau*. As discussed extensively by Strauss (2003), this construction encodes both completive aspect and an evaluative stance on the part of the speaker, a dual semantic contribution it shares with similar constructions in other languages like Korean. The *V-te shimau* construction can undergo one of at least two phonological reductions, resulting in the forms *V-chau* or *V-chimau*. The latter is analyzed by Potts and Kawahara (2004) as an "anti-honorific" expressive morpheme, as exemplified in the following example:

(24)   Example of "anti-honorific" *chimau*:   (Potts and Kawahara, 2004, 254)
         John-wa [Mary-ga   nesugoshi-**chimat**-ta]   -koto-o   shitteiru.
         John-TOP *Mary*-NOM *oversleep*-**antihon**-PAST *-fact*-ACC *know*
         a.   'John knows that Mary overslept.'
         b.   'It sucks that Mary overslept.'   [antihonorification]

Potts and Kawahara (2004, 258) give the following disjunctive characterization of *chimau*'s meaning:

(25)   *Two meaning aspects of* chimau:
         chimau attaches to a verb stem, and
         a.   emphasizes the completion of the action, or
         b.   expresses the speaker's displeasure with the action.

The first of these meanings expresses a kind of completive aspect, while the second expresses something about the speaker's evaluative stance. According to Potts and Kawahara (2004), the second of these meanings is *expressive*, or use-conditional in our terms. This is supported by examples like (24), where the evaluative meaning contributed by *chimau* is interpreted relative to the speaker, despite being embedded under 'John knows'. The antihonorific version of *chimau*, according to Potts and Kawahara, leaves the truth-conditional content of the resulting sentence unchanged, as illustrated by the following examples and their English translations (Potts and Kawahara, 2004, 258):

(26)   a.   nesugoshi-ta   ⇒ nesugoshi-**chimat**-ta
              oversleep-PAST   *oversleep*-***antihon***-PAST
              'I overslept'   'I overslept, which sucks.'

        b.   mi-rare-ta   ⇒ mi-rare-**chimat**-ta
              see-PASS-PAST   *see*-PASS-***antihon***-PAST
              'I was seen'   'I was seen.' ('I wasn't supposed to be seen.')

Although we follow Potts and Kawahara in treating the evaluative meaning component of *shimau /
chimau* as expressive/use-conditional, we argue that it simultaneously contributes truth-conditional
aspectual meaning. The disjunctive characterization of *chimau*'s semantics in (25) is forced by the
fact that Potts and Kawahara analyze the morpheme using the expressive logic of Potts (2005),
which as described above is designed in such a way that mixed content is not allowed. Thus, a
morpheme like *chimau* can *either* contribute truth-conditional aspectual meaning (25a) *or* expres-
sive meaning (25b), but not both simultaneously. We think, however, that this is incorrect, and that
in fact *chimau* and its unreduced counterpart *shimau* can be seen to contribute to both meaning
dimensions simultaneously.

Strauss cites Soga (1983) in labeling *shimau* as a marker of "emotive terminative aspect", an evoca-
tive label that simultaneously references the construction's contribution to aspectual and expressive
meaning dimensions. This double contribution of *shimau* is illustrated by the following example,
from Makino and Tsutsui (1986) as cited by Strauss (2003, 661) (transcription and gloss modified
from the original):

(27)   koko-ni   oiteoku-to jimu-ga   tabe-te shimau   yo.
        here-LOC *put-if*   *Jim*-NOM *eat*-TE SHIMAU PRT
        'If you leave it here, Jim will eat it (up).'

Describing the dual semantic contribution of *shimau* in the above sentence, Strauss says that it "ex-
presses the idea that if the food item in question is left unattended, Jim will eat it all and nothing
will be left of it — an outcome that would likely engender regret, disappointment, or even relief,
depending upon the context" (Strauss, 2003, 661). In this example, then, it seems like *shimau* con-
tributes both a completive aspect and an expressive meaning simultaneously. Strauss's description
also suggests that it is the underlying completive aspect meaning (expressing a finished action that
cannot be undone) that leads to an implicature about the speaker's evaluative stance toward the
situation (regret, disappointment, etc). Following this intuition, we argue that the basic meaning of
shimau is historically aspectual; this basic aspectual meaning generates an implicature about the
speaker's evaluative stance. Over time, this implicature has become conventionalized, giving rise to
an expression that simultaneously contributes a truth-conditional aspectual meaning (correspond-
ing to the meaning in (25a)) and a use-conditional evaluative/expressive meaning (corresponding
to the meaning in (25b)).

While *shimau/chimau* expresses negative speaker evaluation, it continues to express completive
aspect as well. It is thus a hybrid expression, representing Stage 2 of the pragmaticalization process:

(28)   **Stage 1:** $[\![shimau_1]\!] = \lambda p \lambda e. p(e) \ \& \ \mathbf{CMPL}(e) : \langle\langle s,t\rangle, \langle s,t\rangle\rangle$
        Stage 2: $[\![shimau_2]\!] = \lambda p \lambda e. p(e) \ \& \ \mathbf{CMPL}(e) : \langle\langle s,t\rangle, \langle s,t\rangle\rangle \blacklozenge \lambda p.\mathbf{EVAL}(p) : \langle\langle s,t\rangle, u\rangle$

Stage 2 represents a situation where a pervasive conversational implicature (here, negative speaker sentiment) generated by the truth-conditional meaning of the Stage 1 morpheme has become conventionalized, but has not replaced the original truth-conditional content of the expression.[4] In the next case study, we discuss a construction in Yaeyama Ryukyuan, a sister language of Japanese, in which a similarly mixed-content item has undergone what we call *pragmatic fission*, leading to an ambiguity between a truth-conditional and use-conditional meaning.

5. Case Study 2: Pragmatic Negation *neenu* in Yaeyama Ryukyuan

The Ryukyuan languages (ShimojiPellard:2010) exhibit a diachronic process whereby a morpheme originally encoding *logical* negation has come to be used in a particular construction to express instead a kind of *pragmatic* negation. The data in this paper are based on original fieldwork on the Miyara dialect of Yaeyaman (henceforth Miyaran), a Southern Ryukyuan language spoken on the island of Ishigaki in Okinawa Prefecture, Japan (English-language descriptive overviews of Miyaran can be found in Izuyama 2003 and Davis and Lau 2015).

In Miyaran, the negative morpheme *neenu* has a basic function as the negative form of the inanimate existential verb *aru*. It is also used as a marker of logical negation in certain constructions, for example when added to an adjectival predicate:

(29)   bada=du   ncc-i-ru,   jaa-ha-**neenu**   =saa.
        stomach=FOC *fill*-PROG-PRS *hungry*-ADJ-**NEG** =SFP
        'My stomach's full, I'm not hungry.'

In these environments, *neenu* is used to signal logical, truth-conditional negation. But in the construction illustrated by the sentence below, the logical negation associated with the morpheme can be semantically bleached, in which case it instead indicates a negative attitude or assessment on the part of the speaker toward the situation being described:

(30)   iz-i   neenu.
        say-INF NEG
        a.   '(I) haven't said anything.'
        b.   '(I) went and said something (which I shouldn't have).'

In the construction illustrated above, *neenu* appears after the infinitival form of the verb stem, resulting in the verbal complex *V-i neenu*. The resulting predicate is ambiguous: It can indicate logical negation, i.e. 'has not *V*-ed', or it can indicate a negative attitude about something that has happened, i.e. 'has *V*-ed (which sucks)'. The two meanings of *neenu* can be disambiguated with

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[4]In fact, Strauss discusses cases where the evaluative contribution of *shimau* is not negative, but positive, suggesting that, as in the case of other well-studied expressives like English *damn*, the valency or polarity of the use-conditional is highly context-dependent.

polarity sensitive particles:

(31)   a.   meeda iz-i   neenu.
              yet   say-INF NEG
              '(I) haven't said (anything) yet.'
        b.   kïsa   iz-i   neenu.
              just.now say-INF NEG
              '(I) went and said it just now.'

NPIs like *meeda* 'yet' disambiguate toward the logical negation meaning (31a), while PPIs like *kïsa* 'just now' disambiguate toward the pragmatic negation meaning (31b).

The ambiguity of *neenu* can be captured by positing two homophonous lexical entries, truth-conditional *neenu*$_{log}$ and use-conditional *neenu*$_{exp}$. *neenu*$_{log}$ encodes logical negation, targeting the truth-conditional content of the utterance, while *neenu*$_{exp}$ has no effect on the truth conditions of the utterance. Instead, *neenu*$_{exp}$ expresses a sense of regret, consternation, or some other negative emotion on the part of the speaker toward the proposition being expressed, very similar to the use-conditional contribution of Japanese *shimau/chimau*. In fact, when Yaeyaman speakers are asked to translate constructions with *neenu*$_{exp}$ into Japanese, they often use *shimau*, and vice versa when translating sentences with *shimau* into Yaeyaman. As a first pass approximation, then, we can assume that the use-conditional content of *neenu*$_{exp}$ is the same as that of *shimau*. Unlike *shimau*, however, the truth-conditional and use-conditional meaning dimensions are not expressed simultaneously.

(32)   a. $\llbracket neenu_{log} \rrbracket = \lambda p . \mathbf{NEG}(p) : \langle\langle s,t \rangle, \langle s,t \rangle\rangle$
        b. $\llbracket neenu_{exp} \rrbracket = \lambda p . \mathbf{PRAGNEG}(p) : \langle\langle s,t \rangle, u\rangle$

neenu$_{log}$ is of type $\langle\langle s,t \rangle, \langle s,t \rangle\rangle$, while *neenu*$_{exp}$ is of type $\langle\langle s,t \rangle, u\rangle$. We argue that the expressive negation marker *neenu*$_{exp}$ derives historically from the logical negation marker *neenu*$_{log}$, exemplifying the pragmaticalization pattern in which a truth-conditional expression diachronically shifts to a use-conditional expression. More specifically, a function from truth-conditions into truth-conditions shifts into a function from truth- into use-conditions.

(33)   *neenu*$_{log}$ > *neenu*$_{exp}$

This pragmaticalization pattern makes logical negation *neenu*$_{log}$ the basic and historically older interpretation. Evidence for this comes from the fact that *neenu*$_{log}$ has a broad distribution in Miyara Yaeyaman, outside the construction discussed here. In all other contexts where it appears, *neenu* consistently negates the truth-conditional content of the sentence without contributing any conventionalized negative attitude toward the proposition, i.e. it is interpreted similarly to *neenu*$_{log}$. The original meaning (logical negation) is preserved in all contexts, while the pragmaticalized meaning is found in only a subset thereof.

The pragmaticalization exhibited by *neenu* can be attributed to a strong cross-linguistic tendency

for expressions of logical negation to be associated pragmatically with negative attitudes on the part of the speaker, a fact documented in detail by Potts (2011). As Potts documents on the basis of cross-linguistic corpus data, words and morphemes encoding logical negation have usage patterns associated consistently with negative evaluative contexts. We take it that these usage patterns register initially as a kind of conversational implicature, where use of negative morphology tends to trigger an implicature of negative attitude. This implicature can subsequently be conventionalized, for particular morphemes in particular constructions (here, *neenu*), leading to a hybrid expression. Finally, the original truth-conditional content can be bleached, leaving a pure expression of "pragmatic negation" freed from its original logical source.

The pragmaticalization path we posit for *neenu* is one that we label *pragmatic fission*.

(34)   Pragmatic Fission of *neenu*

      Stage 1: Original morpheme with only truth-conditional content.

      Stage 2: In a particular construction, an implicature is conventionalized, leading to a hybrid expression.

      Stage 3: The hybrid expression splits into two homophonous expressions, one encoding only the original truth-conditional content, the other encoding only the usage-conditional content.

For *neenu*, the synchronic grammar represents Stage 3, with truth-conditional $neenu_{\log}$ and usage-conditional $neenu_{\exp}$ fissioning from Stage 2 hybrid $neenu_2$.

(35)   **Stage 1:** $[\![neenu_1]\!]$ $= \lambda p.\mathbf{NEG}(p) : \langle \langle s,t \rangle, \langle s,t \rangle \rangle$

      Stage 2: $[\![neenu_2]\!]$ $= \lambda p.\mathbf{NEG}(p) : \langle \langle s,t \rangle, \langle s,t \rangle \rangle \blacklozenge \lambda p.\mathbf{PRAGNEG}(p) : \langle \langle s,t \rangle, u \rangle$

      Stage 3: $[\![neenu_{\log}]\!] = \lambda p.\mathbf{NEG}(p) : \langle \langle s,t \rangle, \langle s,t \rangle \rangle$

                     $[\![neenu_{\exp}]\!] = $ $\lambda p.\mathbf{PRAGNEG}(p) : \langle \langle s,t \rangle, u \rangle$

In the discussion of *neenu* presented thus far, we have ignored the fact that in addition to negation (logical or pragmatic), the morpheme also encodes a kind of aspectual semantics, similar to that seen with *shimau*. The verbal construction *V neenu* is the negative form of a construction encoding a kind of resultative or stative aspectual semantics, saying that some current state holds that results from an earlier event described by the verb. Following the analysis in Davis and Lau (2015), we call this the *resultative* verb form. The morpheme encoding this aspectual semantics is *-eeru*:

(36)   izj-eeru.
      say-RES
      '(I am) in a **state resulting from** an event of saying (something).'

The semantics of *-eeru* can be approximated as follows, where $\mathbf{RES}(e, e')$ is true if e is an eventuality resulting from eventuality e':

(37) $\llbracket eeru \rrbracket = \lambda p.\lambda e.\exists e'[p(e') \ \& \ \mathbf{RES}(e,e')]$

We propose that $neenu_{\log}$ is the negative counterpart of the resultative aspect marker *-eeru*. That is, it encodes both the resultative semantics of *-eeru* as well as logical negation (which scopes over this aspectual semantics). The use of $neenu_{\log}$ contributes the same aspectual semantics as *-eeru*, and then negates the resulting proposition:

(38)   izi   neenu.
          say RES.NEG
          '(I am) **not** in a **state resulting from** an event of saying (something).'

The semantics of $neenu_{\log}$ incorporating both aspect and negation can be approximated as follows:

(39) $\llbracket neenu_{\log} \rrbracket = \lambda p\lambda e.\mathbf{NEG}(\exists e'[p(e') \ \& \ \mathbf{RES}(e,e')])$

The pragmaticalized $neenu_{\exp}$ loses the truth-conditional negative meaning component, but we propose that it contributes the same resultative aspectual semantics as both $neenu_{\log}$ and *-eeru*:

(40)   izi   neenu.
          say RES.NEG
          '(I am) in a **state resulting from** an event of saying (something) (**which sucks**).'

This can be modeled by a denotation with both truth-conditional aspectual semantics and use-conditional negative semantics:

(41) $\llbracket neenu_{\exp} \rrbracket = \lambda p.\lambda e.\exists e'[p(e') \ \& \ \mathbf{RES}(e,e')] \ \blacklozenge \ \lambda p. \mathbf{PRAGNEG}(p)$

There are thus actually *two* components to the meaning of $neenu_{\log}$: resultative aspect (**RES**) and negation (**NEG**). In the pragmaticalized $neenu_{\exp}$, truth-conditional **NEG** has shifted to use-conditional **PRAGNEG**, leaving the resultative aspectual semantics **RES** behind in the truth-conditional dimension. $neenu_{\exp}$ is thus a hybrid expression, resulting from a partial pragmaticalization of *neenu*. The synchronic grammar represents Stage 3 of the following pragmaticalization path:

(42)   **Stage 1:** $\llbracket neenu_1 \rrbracket$ $= \lambda p\lambda e.\mathbf{NEG} \ \exists e'[p(e') \ \& \ \mathbf{RES}(e,e')]$

       Stage 2: $\llbracket neenu_2 \rrbracket$ $= \lambda p\lambda e.\mathbf{NEG} \ \exists e'[p(e') \ \& \ \mathbf{RES}(e,e')] \ \blacklozenge \ \lambda p.\mathbf{PRAGNEG}(p)$

       Stage 3: $\llbracket neenu_{\log} \rrbracket = \lambda p\lambda e.\mathbf{NEG} \ \exists e'[p(e') \ \& \ \mathbf{RES}(e,e')]$
                     $\llbracket neenu_{\exp} \rrbracket = \lambda p\lambda e. \qquad \exists e'[p(e') \ \& \ \mathbf{RES}(e,e')] \ \blacklozenge \ \lambda p.\mathbf{PRAGNEG}(p)$

6. Conclusion and open questions

In the preceding sections we have argued for a three-stage model of pragmaticalization, in which expressions of mixed truth-conditional and use-conditional types serve as a bridge between original descriptive expressions and their semantically bleached, pragmaticalized counterparts. In Stage 1 of the process, we have an expression with a purely descriptive, truth-conditional semantics

which, for extra-linguistic reasons, tends to trigger a conversational implicature when used. Stage 2 represents a situation where, due to the consistency of this implicature, it is conventionalized, becoming part of the conventional semantic content of the original expression. In effect, the move from Stage 1 to Stage 2 represents a shift from a conversational to a conventional implicature. The possibility of mixed expressions in the lexicon allows for this shift to happen "non-destructively", leaving the original truth-conditional content of the expression intact.[5]

Once the original pragmatic content has been conventionalized into the use-conditional meaning dimension, the conditions are right for semantic bleaching of the original truth-conditional content to take place, moving us from Stage 2 to Stage 3. Note that by deleting the original truth-conditional content of the utterance, this shift removes the original trigger for the implicature whose conventionalization generated the use-conditional content of the expression in the first place. This stage in effect deletes the source of the implicature, leaving only the implicature behind.

This basic framework helps to make sense of pragmaticalization, and in particular the existence of mixed UCIs provides a bridge between the two ends of the pragmaticalization path. There are of course many questions left to resolve within this general approach. For example, what are the contexts that enable and facilitate such diachronic type shifts? What are (im)possible pragmaticalization paths? How exactly does conventionalization of an implicature happen, and how would we as researchers (and as language learners) be able to tell when conventionalization had occurred? We hope that these and other questions can be fruitfully explored within the basic formal framework developed in this paper.

References

Abraham, W. (1991). The grammaticalization of the German modal particles. In E. C. Traugott and B. Heine (Eds.), *Approaches to Grammaticalization. Volume 1: Focus on Theoretical and Methological Issuesu*, pp. 331–380. Amsterdam and Philadelphia: Benjamins.

Auer, P. and S. Günthner (2005). Die Entstehung von Diskursmarkern im Deutschen – ein Fall von Grammatikalisierung? In T. Leuschner, T. Mortelmans, and S. De Groodt (Eds.), *Grammatikalisierung im Deutschen*, pp. 335–362. Berlin and New York: de Gruyter.

Autenrieth, T. (2002). *Heterosemie und Grammatikalisierung bei Modalpartikeln. Eine synchrone und diachrone Studie anhand von* eben, halt, echt, einfach, schlicht *und* glatt. Tübingen: Niemeyer.

Autenrieth, T. (2005). Grammatikalisierung bei Modalpartikeln: das Beispiel *eben*. In

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[5]Given the fact that this shift represents a move from non-conventional pragmatic content to conventional (and therefore, in our terms semantic) content, the process might better be described as *semanticalization of pragmatic content*, rather than *pragmaticalization*, which would seem to suggest a move *away* from conventional content. However, if one considers the process from stage 1 to stage 3, the term *pragmaticalization* seems adequate again.

T. Leuschner, T. Mortelmans, and S. De Groodt (Eds.), *Grammatikalisierung im Deutschen*, pp. 309–334. Berlin and New York: de Gruyter.

Davis, C. and T. Lau (2015). Tense, aspect, and mood in Miyara Yaeyaman. In P. Heinrich, S. Miyara, and M. Shimoji (Eds.), *Handbook of the Ryukyuan Languages*, pp. 253–297. Mouton de Gruyter.

Diewald, G. (2011). Pragmaticalization (defined) as grammaticalization of discourse functions. *Linguistics 49*(2), 365–390.

Diewald, G. and I. Wischer (Eds.) (2002). *New Reflections on Grammaticalization*. Amsterdam: Benjamins.

Frege, G. (1897/1979). Logic. In H. Hermes, F. Kambartel, and F. Kaulbach (Eds.), *Posthumous Writings: Gottlob Frege. Translated by Peter Long and Roger White*, pp. 126–151. Oxford: Blackwell.

Gohl, C. and S. Günthner (1999). Grammatikalisierung von *weil* als Diskursmarker in der gesprochenen Sprache. *Zeitschrift für Sprachwissenschaft 18*(1), 39–75.

Gutzmann, D. (2011). Expressive modifiers & mixed expressives. In O. Bonami and P. Cabredo-Hofherr (Eds.), *Empirical Issues in Syntax and Semantics 8*, pp. 123–141.

Gutzmann, D. (2013). Expressives and beyond. An introduction to varieties of use-conditional meaning. In D. Gutzmann and H.-M. Gärtner (Eds.), *Beyond Expressives. Explorations in Use-Conditional Meaning*, pp. 1–58. Leiden: Brill.

Gutzmann, D. (2015). *Use-Conditional Meaning. Studies in Multidimensional Semantics*. Oxford: Oxford University Press.

Heine, B. (2003). Grammaticalization. In B. D. Joseph and R. D. Janda (Eds.), *The Handbook of Historical Linguistics*, pp. 575–601. Oxford: Blackwell.

Hentschel, E. (1986). *Funktion und Geschichte deutscher Partikeln:* ja, doch, halt *und* eben. Tübingen: Niemeyer.

Hopper, P. J. and E. C. Traugott (2003). *Grammaticalization* (2 ed.). Cambridge: Cambridge University Press.

Izuyama, A. (2003). The grammar of the Ishigaki Miyara dialect in Luchuan. In A. Izuyama (Ed.), *Studies on Luchuan Grammar*, pp. 1–162. Kyoto: ELPR.

Kaplan, D. (1999). The meaning of *ouch* and *oops*. Explorations in the theory of meaning as use. Ms. 2004 version.

Lehmann, C. (1995). *Thougths on Grammaticalization*. München: Lincom.

Makino, S. and M. Tsutsui (1986). *A Dictionary of Basic Japanese Grammar*. Tokyo: The Japan Times.

McCready, E. (2010). Varieties of conventional implicature. *Semantics & Pragmatics 3*(8), 1–57.

Narrog, H. and B. Heine (2011). *The Oxford Handbook of Grammaticalization*. Oxford: Oxford University Press.

Potts, C. (2005). *The Logic of Conventional Implicature*. Oxford: Oxford University Press.

Potts, C. (2011). On the negativity of negation. In N. Li and D. Lutz (Eds.), *Proceedings of Semantics and Linguistic Theory 20*, pp. 636–659. CLC Publications.

Potts, C. and S. Kawahara (2004). Japanese honorifics as emotive definite descriptions. In K. Watanabe and R. B. Young (Eds.), *Proceedings of Semantics and Linguistic Theory 14*, pp. 235–254. CLC Publications.

Recanati, F. (2004). Pragmatics and semantics. In L. R. Horn and G. Ward (Eds.), *The Handbook of Pragmatics*, pp. 442–462. Oxford: Blackwell.

Soga, M. (1983). *Tense and Aspect in Modern Colloquial Japanese*. University of British Columbia Press.

Strauss, S. (2003). Completive aspect, emotion, and the dynamic eventive: The case of Korean *v-a/e pelita*, Japanese *v-te shimau*, and Spanish *se*. *Linguistics 41*(4), 653–679.

Traugott, E. C. (1995). Subjectification in grammaticalisation. In D. Stein and S. Wright (Eds.), *Subjectivity and Subjectivisation. Linguistic Perspectives*, pp. 31–54. Cambridge: Cambridge University Press.

Traugott, E. C. (2003). Constructions in grammaticalization. In B. D. Joseph and R. D. Janda (Eds.), *The Handbook of Historical Linguistics*, pp. 624–647. Oxford: Blackwell.

Traugott, E. C. and B. Heine (Eds.) (1991). *Approaches to Grammaticalization. Volume 1: Focus on Theoretical and Methological Issues*. Amsterdam: Benjamins.

Wegener, H. (2002). The evolution of the German modal particle *denn*. See Diewald and Wischer (2002), pp. 379–394.