**The story of Negative Polarity**

Certain expressions seem to happily occur only in the context of a "negative operator", as the example involving *ever* in (1) suggests.

(1)  a.  Schmidt hasn't ever been to Boston.
     b.  *Schmidt has ever been to Boston.

However, negation is not the only licensing operator.

(2)  a.  Every friend of mine who ever met Schmidt went to BU.
     b.  *Every friend of mine who went to BU ever met Schmidt.

Various people have proposed various analyses that attempt to provide a natural grouping of the *ever* licensing contexts, such as (1) or (2). Analyses range from more syntactically oriented ones, assuming f.i. an *affective*, or *negative* feature (Klima, 1964; Baker, 1970), to more algebraic ones like Ladusaw (1979). Ladusaw characterized the environments by their entailment pattern.

(3)  An operator *Op* is downward entailing (DE) if and only if for any arguments *X* and *Y*, $X \subseteq Y \rightarrow Op(Y) \subseteq Op(X)$. It is upward entailing if and only if $X \subseteq Y \rightarrow Op(X) \subseteq Op(Y)$. It is non-monotone otherwise.

Later approaches have linked the distribution of these negative polarity items (NPIs) to their semantic contribution (Kadmon and Landman, 1993; Krifka, 1995; Lahiri, 1998; Chierchia, 2004).

(4)  a.  I didn't have any troubles following the other talks, but this one is a little weird.
     b.  *I have any troubles following this talks.

Assumptions of the *widening/strengthening* proposals
- *a* and *any* are "alternatives" in some sense - they share their semantic core
- *a* and *any* differ in that *any* introduced *domain widening*
- the use of *any* is licensed if domain widening leads to a stronger statement

Semantic core of *a* and *any*:
- existential indefinite

Domain widening:
- Quantifiers come with implicit domain restrictors. *Any* conveys that this domain should be a superset of the contextually given domain.

Strengthening:
- Widened statement entails the alternative one(s).

(5)  a.  I have a/*any potatoe(s).
     b.  I don't have a/any potatoes.

(6)  a.  $(\exists_D x_e)$ potato($x$) $\wedge$ have(sp,$x$)
     b.  $\neg(\exists_D x_e)$ potato($x$) $\wedge$ have(sp,$x$)

(7)  Where $D \subseteq D'$
     a.  $(\exists_D x_e)$ P($x$) $\wedge$ Q($x$) entails $(\exists_{D'} x_e)$ P($x$) $\wedge$ Q($x$)
     b.  $\neg(\exists_{D'} x_e)$ P($x$) $\wedge$ Q($x$) entails $\neg(\exists_D x_e)$ P($x$) $\wedge$ Q($x$)

**Like a drifter I was born to walk alone**

(8)  a.  Ich habe überhaupt nichts    gesagt.
         I    have *überhaupt* nothing said
         'I haven't said anything (at all).'

     b.  ?*Ich habe überhaupt etwas        gesagt.
         I    have *überhaupt* something said
         'I said something (but only something tiny).'

(9)  a.  Das  geht dich überhaupt nichts    an.
         that  goes you *überhaupt* nothing on
         'That's none of your business.'

     b.  ?*Das  geht dich überhaupt etwas        an.
         that  goes you *überhaupt* something on
         'That's of your concern (even though possibly only tangentially so).'

(10) a.  Es ist selten überhaupt etwas       von dem was  er  sagt zu verstehen.
         it  is  rarely *überhaupt* something of    that  what he says to  understand
         'It is rare that you will understand anything of what he's saying.'

     b. *Es ist häufig überhaupt etwas        von dem was   er  sagt zu verstehen.
         it  is  often *überhaupt* something of    that  what he says to  understand

**If überhaupt can walk on its own, it should be able to appear elsewhere**

Widening in a positive polarity context should lead to strengthening if the relevant quantifier is a universal (in the negative context $\neg\exists x\phi \equiv \forall x\neg\phi$).

(11) Meine Mutter  kennt  überhaupt jeden        in Mindelheim.
     my      mother knows *überhaupt*  everybody in Mindelheim.
     'My mother knows just anybody in Mindelheim.'

**Überhaupt modifies contextually supplied arguments.**

Adopting Chierchia (2004), who treats domain widening as universal quantification over supersets of D:

(12) $(\forall D'_{\supset D})\ [(\forall x_{\in D'})\ [\text{knows(speaker's mother}, x)\ ]]$

(13) For any $D$, $(\forall D'_{\supset D})\ [(\forall x_{\in D'})\ \phi]$ entails $(\forall x_{\in D})\ \phi$

**Überhaupt and other contextual arguments**

*Gradable adjectives / comparison classes*

(14) The mars pathfinder mission is expensive.

(15) a. ⟨…, this pen, …, my cheap bookshelf, …, our A/C, …, next year's textbooks, …, Kyle's car, …, that idiot's HumVee, …, Air Force One, …, the Mars pathfinder mission, …, a manned Mars mission, …⟩
   b. {this pen, my friend's A/C, Kyle's BMW, AF One, the Mars Pathfinder mission}
   c. {Mars Pathfinder, Deep Impact, Mars Phoenix, Mir, manned Mars mission}

(16) a. Richard ist ganz schön groß für einen noch nicht Ausgewachsenen.
      Richard is quite pretty tall for a    yet not    grown-up.
      `Richard is quite tall for a person who hasn't grown-up yet.'

   b. Richard ist überhaupt ganz schön groß.
      Richard is *überhaupt* whole pretty tall
      `Richard is quite tall in general.'

   c. Where C and C' are variables over comparison classes, $(\forall C'_{\supset C})[\text{tall}(C')(r)]$.

(17) a. Für eine amische Hochzeit war das ganz schön extravagant.
      For an amish wedding was that whole pretty extravagant
      `That was quite fancy for am Amish wedding.'

   b. (Sogar) für eine Hochzeit in Manhattan was das sehr extravagant.
      (Even) for a    wedding in Manhattan was that very extravagant
      `That was very fancy even for a Manhattan wedding.'

   c. Das war überhaupt eine sehr extravagante Hochzeit.
      that was überhaupt a    very extravagant    wedding
      `That was generally a quite fancy wedding.'

   Discourse 17 a - 17 c: ✓        Discourse 17 a - 17 c: #

*Domain adverbs / points of view* (following roughly König 1983)

(18) a. Politisch war die Entscheidung eine Dummheit.
      politically was the decision        a      stupidity.
      'Politically, the decision was stupid.'

   b. Die Entscheidung war überhaupt eine Dummheit.
      the decision        was *überhaupt* a    stupidity.
      'The decision was stupid in general'

   c. Where V and V' are variables over sets of points of view,
      $(\forall V'_{\supset V})\ (\forall v_{\in V})$ [from point of view v: stupid($\iota x$. decision($x$)].

*Conversational Backgrounds*

(19) A: Du hast dir    von Fritz viel Geld geliehen.
      you have to you from Fritz much money borrowed
      'You borrowed a lot of money from Fritz.'

   a. B: Ich habe mir    überhaupt kein Geld    von Fritz geliehen.
       I   have to me überhaupt no    money from Fritz borrowed
       'I didn't borrow any money from Fritz at all.'

   b. B: Ich kenne Fritz überhaupt nicht.
       I   know Fritz überhaupt not
       'I don't even know Fritz.'

   (cf. Ich kenne Fritz über*haupt* nicht.)

**Some of the references**

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