The Question

The Literal Force Hypothesis

Sentential Force

Speech Act Modifiers, Modified

References

The Question

Hey B, what are you looking at?

I’m looking at a rabbit.

Don’t touch it!

But it’s so cute!

It’s dirty.
The Force of Utterances

Examples

Some Utterances
(1) A: What are you looking at?
(2) B: I’m looking at a rabbit.
(3) A: Don’t touch it!
(4) B: But it’s so cute!
(5) A: It’s dirty.

Some Forces
- Asking (1)
- Asserting (2), (4), (5)
- Commanding (3)

Austinian (1962) Diagnosis for Force

Why does, say, (1) count as having the force of asking a question?
• “In saying (1), A was asking B a question.” ✓

Austin (1956/1979: 251)

“We may be quite clear what Shut the door means, but not yet at all clear on the further point as to whether as uttered at a certain time it was an order, an entreaty or whatnot. What we need besides the old doctrine about meanings is a new doctrine about all the possible forces of utterances.”

Utterance Forces
The Need for New Doctrine

Two questions:
1. What are forces?
2. How does an utterance come to have one? ←

Austinian (1962) Diagnosis for Force

Why does, say, (1) count as having the force of asking a question?
• “In saying (1), A was asking B a question.” ✓

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Utterance Force and Content
The Intuitive Distinction

Utterance Force (Austin 1962)

How an utterance is to be taken; the function that utterance serves in a particular conversation; can be more or less explicit. (aka ‘Illocutionary’ or ‘Speech Act’ Force)
- Those transactions need to be investigated.
- I hereby require those transactions to be investigated.

Utterance Content
What an utterance is about; what is being said; can be more or less precise. (aka ‘Content’ or ‘Sense and Reference’)
- Will is from the Southwest.
- Will is from NM.
The Question

Linguistic Modification Question
Can linguistic material directly encode and modify utterance force?
- **Directly**: beyond encoding/modifying content.

Options?
1. **Yes**: Literal Force Hypothesis
   (e.g. Stenius 1967; Searle 1969; Sadock 1974; Krifka 2014)
2. **No**: Content Only Hypothesis
   (e.g. Hausser 1980; Gazdar 1981; Levinson 1983; Portner 2004)
3. **It’s Complicated**: non-content linguistic constraints on force
   (e.g. Alston 1964; Bach & Harnish 1979; Murray & Starr 2019)

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IS FORCE LINGUISTICALLY ENCODED?

The Literal Force Hypothesis
What is It?

Speech Act Assignment (Gazdar 1981)
- What does the mapping from interpreted sentences to utterance forces look like?
- Better: mapping from utterances of interpreted sentences.
- Assuming intuitive individuation of utterance forces.
  - Assertions, promises, etc.

Universal Sentence Types
(12) Maya sang. (Declarative)
(13) Did Maya sing? (Interrogative)
(14) Maya, sing! (Imperative)
(König & Siemund 2007; Sadock & Zwicky 1985)
Frege’s Early Statement

Literal Force Hypothesis

“...Therefore two things must be distinguished in an indicative sentence: the content, which it has in common with the corresponding sentence-question, and the assertion. The former is the thought, or at least contains the thought. So it is possible to express the thought without laying it down as true. Both are so closely joined in an indicative sentence that it is easy to overlook their separability. Consequently we may distinguish:

1. the apprehension of a thought — thinking,
2. the recognition of the truth of a thought — judgment,
3. the manifestation of this judgment — assertion.”

(Frege 1918: 293–4)
The First Challenge

The Literal Force Hypothesis

- Sentence type/mood does not determine utterance force.
- Only ‘serious and literal’ utterances of declaratives will have assertive force.

The ‘Good Uses’ Challenge

Give a rigorous account of what separates ‘serious and literal’ utterances from the others.
- Pressed by Davidson (1979).

Searle’s Bravado

Literal Force Hypothesis

Linguistic Elements Determine Utterance Force

Searle (1969: 21) proclaims we may “equate rules for performing speech acts with rules for uttering certain linguistic elements, since for any possible speech act there is a possible linguistic element the meaning of which (given the context of utterance) is sufficient to determine that its literal utterance is a performance of precisely that speech act. To study the speech acts of promising or apologizing we need only study sentences whose literal and correct utterance would constitute making a promise or issuing an apology.”
The Underdetermination Problem

The Literal Force Hypothesis: interrogatives

Questioning Force Associated w/Interrogative (Searle 1969: 66)

1. Uttering $?p$ counts as attempt to get the hearer to provide information about $p$;
2. speaker does not know whether $p$;
3. and speaker wants to know whether $p$.

(15) a. **Supervisor to inattentive retail employee:**
   What does that customer over there need?
   • Violates 1, probably 2 & 3

(15) b. **In verbal exam:** What is the capital of Latvia?
   • Violates 2 & 3

(15) c. **Among fellow, overconfident geographers:**
   What is the capital of Latvia?
   • Violates 3, probably 1

Save the LFH?

Utterances (15) have some other non-literal forces

- Problem: why?
- Mapping from form to force is context-dependent
  - No way to make this work (Starr 2014)
- Default force is pragmatically weakened
  - No accounts of how this goes.

Exactly parallel points for declaratives and imperatives apply.


Sentence type/mood does not determine utterance force.
Cohen’s Problem
Performative Verbs Can’t be Force Indicators

(16) I conjecture that Ithaca is colder than Syracuse right now.

- Cohen (1964): ‘I conjecture’ cannot indicate utterance force
- First, (16) is a declarative sentence, so must be an assertion
- Second, the same verb can generate related meanings in different tenses
  - But via content, not force
  - So ‘force indicator’ view of performative verbs is false.
- It seems to follow that utterance force can arise without being directly indicated.

Explicit Forces
The Difference between Performatives and Root Clauses

Context: I run into one of my grad students in the Department Lounge. We are casually discussing their personal and professional plans for break.

(17) a. Write an abstract.
    b. I require you to write an abstract.
    c. I suggest you write an abstract.

- Force of (17a) likely to be ambiguous.
- Not so for (17b) and (17c).
- Not captured if imperative mood is assigned some particular directive force (e.g. command, suggestion, advice)
- Nothing special about imperatives.

Harman (1971) on Talking and Thinking
Using Language to Think

THREE LEVELS OF MEANING

PHILOSOPHERS approach the theory of meaning in three different ways. (1) Carnap, Ayer, Lewis, Firth, Hempel, Searle, Quine, etc. take meaning to be connected with evidence and inference, a function of the place an expression has in one's "conceptual scheme" or of its role in some inferential "language game." (2) Morris, Stevenson, Grice, Katz, etc. take meaning to be a matter of the idea, thought, feeling, or emotion that an expression can be used to communicate. (3) Wittgenstein (4), Austin, Hare, Nowell-Smith, Searle, Alston, etc. take meaning to have something to do with the speech acts the expression can be used to perform.

- Sentences are used to think, i.e. reason.
- Sentences are used to communicate thoughts.
- Sentences are used to carry out social practices.

The Literal Force Hypothesis
In Decline

Challenges for the Literal Force Hypothesis
1. The 'good uses' challenge
2. The underdetermination problem
3. Cohen’s problem
4. The explicit forces problem

Hausser (1980:176)

Syntactic mood does not determine the speech act. Rather, syntactic mood participates with all the other linguistic properties of a given surface expression \( \phi \) in delimiting the set of use-conditions of \( \phi \). Since there is no one to one relation between syntactic moods and speech acts, it would be a mistake to implement speech act properties in the semantic characterization of syntactic mood.
**Background**

**Sentence Types, Utterance Force**

**Universal Sentence Types**

(18) Maya sang. (Declarative)
(19) Did Maya sing? (Interrogative)
(20) Maya, sing! (Imperative)
(König & Siemund 2007; Sadock & Zwicky 1985)

**Sentential Force/Mood (Chierchia & McConnell-Ginet 1992: §4.3)**

Characteristic discourse function of a sentence type.

**Utterance Force [After Austin 1962]**

Actual function of a particular utterance.

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**Sentence Force and Acceptance Attitudes**

- What is it to accept some information \( p \)?
  - To rule-in possibilities compatible w/ \( p \)
  - And rule out possibilities incompatible w/ \( p \)
- Acceptance attitudes include belief, know, suppose, pretend (Stalnaker 1984: Ch.5)
- Common ground is a mutual acceptance attitude (Stalnaker 2002)
  - Common ground \( \neq \) mutual belief
- Essential effect of assertion (Stalnaker 1978): mutually accepting new information
- Common to asserting, stating, conjecturing, pretending, etc. (Stalnaker 1978, 2014: 113)

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**LOGICAL SPACE**

**ACCEPTING THAT A**

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**LOGICAL SPACE**

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LOGICAL SPACE

ACCEPTING QUESTION WHETHER A

LOGICAL SPACE

ACCEPTING PREFERENCE FOR A
The Question The Literal Force Hypothesis Sentential Force Speech Act Modifiers, Modified References

Sentential Force
What it is, and what it explains

Sentential Force and Acceptance Dynamics
Sentential forces correspond to the dynamics of basic acceptance attitudes, as manifested by rational agents. (Murray & Starr 2019)

Explanatory Roles of Sentential Force
1. Sentential force explains common contextual effects across different speech acts performed with the same sentence type.
2. Sentential force provides an essential input to pragmatic processes which determine the force of an utterance.
(Murray & Starr 2019)

Dynamic Pragmatic Principles (Portner 2016: 612)
1. **Declarative Effect**: The utterance of a root clause $\phi$ counts as an attempt to add its content to the Common Ground if $[\phi]$ is a proposition
2. **Interrogative Effect**: The utterance of a root clause $\phi$ counts as an attempt to add its content to the Question Set if $[\phi]$ is a set of propositions
3. **Imperative Effect**: The utterance of a root clause $\phi$ counts as an attempt to add its content to the To-do List if $[\phi]$ is a property of individuals

• See also Portner (2004) & Roberts (2018)
The Question

The Literal Force Hypothesis

Sentential Force

Speech Act Modifiers, Modified References

Limitations

Of Content Only Hypothesis

Argument from Murray & Starr (2019)

1. Principles are not adequately grounded in pragmatic reasoning
   - Must stipulate only root clauses have sentential force
   - Contents are not ‘intrinsically suitable’ to one discourse function.
2. ‘Pragmatic’ Principles must be applied compositionally in accord with syntactic structure to capture interaction w/connectives and evidentials.

Mood Under Connectives

The Compositional Dynamics

- In dynamic semantics, and is analyzed as sequential update rather than content intersection
  - \( R[\triangleright A \land !B] = R[\triangleright A][!B] \)
- Dynamic, but not static, meanings deliver non-ambiguous analysis of and
  - There is no single operation on contents (propositions, issues, preferences) they perform (Starr forthcoming)
- Same argument for or; conditionals (Starr forthcoming)
  - E.g. \( R[\phi \lor \psi] = R[\phi] \cup R[\psi] \)
Murray & Starr (2018)

Doctrine of Two Forces

Sentential Force (Semantic)
The semantics of sentential mood determines a particular, minimal way of mutually accepting new assumptions.

Utterance Force (Pragmatic)
Utterance force is the broader function that act of mutual acceptance serves in the conversation.

• Relies on mechanisms of coordination
  1. Cooperative intention recognition (e.g. Grice 1975)
  2. (Non-linguisic) Social conventions (e.g. Lewis 1969)
  3. Social norms (e.g. Bicchieri 2006)

Communicative Acts, Sentential Force
And the Linguistic Modification Thesis

Communicative Act
(Utterance Force)

Sentential Force
Pragmatic Mechanisms & Context

Context Update
Static Semantic Content

Linguistic Modification Thesis
Linguistic material can only influence utterance force by influencing sentential force.

• Commitment for both static and dynamic accounts of sentential force.
The Question

The Literal Force Hypothesis

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Speech Act Modifiers, Modified References

Force Operators

Resurrection!

- Krifka (1999) on quantifiers scoping over interrogatives
- Faller (2002) on Quechua reportative evidentials
- Cohen & Krifka (2011, 2014) on superlatives (at least, at most)
  \[ c + \text{assert}(s, a)(\Phi) = [c, s \text{ guarantees } a \text{ that } \Phi \text{ is true}] \]
  \[ c + \text{quest}(s, a)(\Phi) = [c, s \text{ obliges } a \text{ to assert those propositions } p \in \Phi \text{ that } a \text{ can truthfully assert}] \]
- Krifka (2014) on adverbials, embedding verbs
  - Frankly, Tarrytown is boring.
- Beck (2016) on German noch, English still
  - Still, PhLiP is not boring.
- Greenberg & Wolf (2017) on probably vs. probable

- Green (1997, 2000) on performative parentheticals
  - If Karen is, as I propose, amazing, then PhLiP’s in good hands.
- McCready (2005) and Davis (2009) on Japanese -yo
- McCready (2008) on English man as speech act intensifier
- Rett (2011) on exclamatives and sentence exclamations
- Thomas (2014) on Mbyá imperatives/evidentials
  - Reportative evidential -je attaches to imperatives
  - Meaning: reported directive

- J. Heim et. al. (2016) on intonation and sentence-final particles as speech act modifiers.
- Law et. al. (2018) on Q particle ho in Cantonese
  - Modifies morphological declarative/polar interrogatives
  - Modified Declarative: would you make this assertion?
  - Modified Interrogative: do you share this question?
  - Similar to English: Amy eats shrimp, right?
Terminological Debate?
Maybe, Sometimes

- Consider the 'strong assertion' operator from McCready (2008) to model *man*
  - \( c [ \text{sass}(\phi) ] \):
    - Revise \( c \) to be consistent w/ \( \phi \)
    - Update w/ \( \phi \)
- Call it 'strong declarative' ✓
- Same reinterpretation possible for Davis (2009)

Evidentials
Particles which mark the source of the information they tag.

- Evidential sentences convey two pieces of information:
  1. Scope proposition: \( p \)
     - E.g. \( p = \text{Annie danced} \)
  2. Evidential content: speaker has type \( T \) evidence for \( p \)
     - Contents have distinct statuses in discourse.
     - Scope prop. may not be committed to, but is 'main point'.
     - Evidential content is committed to, but is backgrounded.

From Cheyenne (Murray 2011):

(21) A: 'É-ho'sólé-séstse Annie 3-dance RPT.3SG Annie
     'Annie danced, I hear.'

B: ✓ No she didn’t.
     # No you didn’t.

- 'Scope proposition' is at-issue
  - E.g. \( p = \text{Annie danced} \)
- 'Evidential proposition' is not-at-issue
  - E.g. I have reportative evidence for \( p \)
  - An added negation particle would modify \( p \), but not evidential content!
- We Need: theory that distinguishes roles of these two propositions and how these roles are communicated

(22) (i) 'É-némene-séstse Annie naa+oha 3-sing RPT.3SG Annie but
     'Annie sang, they say, but (I’m certain) she didn’t.'

(ii) é-sáa-nénomé-he-∅
     3-NEG-sing NEG-DIR
     'Annie sang, they say, but (I’m certain) she didn’t.'

- Reportative evidential ‘weakens assertion’
- Same pattern elsewhere, e.g. Quecha (Faller 2002)
### Alleged Speech Act Modifiers

**Faller (2002) on Reportative Evidentials**

\[
\text{Faller (2002) analysis of Cuzco Quechua direct evidential (p. 167) }
\]

\[
\begin{align*}
\text{=mi} & \quad \text{ASSERT}(p) \\
\text{SINC} = \{\text{Bel}(s, p)\} \quad & \rightarrow \quad \text{ASSERT}(p) \\
& \quad \text{SINC} = \{\text{Bel}(s, p), \text{Bpg}(s, \text{Bel}(s, p))\}
\end{align*}
\]

\[
\text{Faller (2002) analysis of Cuzco Quechua reportative evidential (p. 200) }
\]

\[
\begin{align*}
\text{=si} & \quad \text{ASSERT}(p) \\
\text{SINC} = \{\text{Bel}(s, p)\} \quad & \rightarrow \quad \text{PRESENT}(p) \\
& \quad \text{SINC} = \{\exists s_2(\text{Assert}(s_2, p) \land s_2 \notin \{h, s\})\}
\end{align*}
\]

### Evidentials

**As Sentential Force Modifiers (Murray 2011, 2014, 2017)**

- Three components of sentential force (Murray 2014):
  1. Attention update (at-issue content)
  2. Not-at-issue content (background content)
  3. Update determined by 1, 2 and input context
- English Declarative: *Shelly won*
  1. \( p \) (proposition that Shelly won)
  2. None
  3. Restrict CG-worlds to \( p \)
- Cheyenne Direct Declarative: *Shelly won-dir*
  1. \( p \)
  2. \( \text{Dir}(s, p) \)
  3. Restrict CG-worlds to \( p \); restrict CG-worlds to \( \text{Dir}(s, p) \)

---

**Beyond Evidentials**

**English Sentential Force Modifiers (Murray 2014, 2019)**

- Three components of sentential force (Murray 2014):
  1. Attention update (at-issue content)
  2. Not-at-issue content (background content)
  3. Update determined by 1, 2 and input context
- English Declarative: *Shelly won, I heard*
  1. \( p \)
  2. \( \text{Rep}(s, p) \)
  3. Restrict CG-worlds to \( p \); restrict CG-worlds to \( \text{Rep}(s, p) \)
- Hedged English Declarative: *Shelly won, I think*
  1. \( p \)
  2. \( \text{Think}(s, p) \)
  3. Restrict CG-worlds to \( p \); restrict CG-worlds to \( \text{Think}(s, p) \)
Beyond Evidentials

English Sentential Force Modifiers (Murray 2014, 2019)

- Three components of sentential force (Murray 2014):
  1. Attention update (at-issue content)
  2. Not-at-issue content (background content)
  3. Update determined by 1, 2 and input context
- Hedged English Interrogative: Did Shelly win, do you think?
  1. p
  2. \(\text{Think}(h, p) \lor \text{Think}(h, \neg p)\)
  3. Propose to partition CG-worlds by \(\Diamond p\); restrict CG-worlds to \(\text{Think}(h, p) \lor \text{Think}(h, \neg p)\)
- ‘Hedged’ English Imperative: Hand me a drink, won’t you?

Incorporates with fully compositional analysis of parentheticals/appositives (Murray 2014; AnderBois et. al. 2015)
- Conventional means of enriching not-at-issue update.
- This can also capture Green (1997)-style parentheticals.
- Look! Without utterance force modifiers...
- It does not involve directly modifying the kind of speaker commitments distinctive of assertions, commands, etc.
- Law et. al. (2018) on Q particle \(\text{ho}\) in Cantonese
  - Similar to English: Amy eats shrimp, right?
  - Similar analysis as ‘hedges’, maybe?

No need to treat reportatives as speech act modifiers
- They can be analyzed as sentential force modifiers
- Such an analysis:
  - Makes different predictions
  - Can unify related phenomena
- ‘Sentential force’ vs. ‘utterance force’ is not a purely terminological difference
- Especially clear with evidentials in interrogatives (Murray 2010)
- Do reportative evidentials w/imperatives require speech act modifiers as Thomas (2014) assumes?
- No. Parallel analysis in terms of sentential force possible e.g. AnderBois (2017)

(23) Shelly told Leo frankly that he is a loser.
(24) Frankly, Leo is a loser.

- Krifka (2014) offers a unified analysis of two uses of \textit{frankly} which assumes it modifies a speech act.
- But is this required?
- Many analyses of tense assume an utterance event, and a verbal event (Kamp & Reyle 1993)
- What is lost by moving from ‘speech act modifier’ to ‘utterance event’ modifier?
- \textit{Not-at-issue update}: this is a frank utterance about \(p\)
Speech Act Modifiers, Allegedly

Adverbs: probably?

- Greenberg & Wolf (2017) highlight a number of differences between modal adverbs like *probably* and adjectives *probable*
- Explain these differences by assuming sentences contain a gradeable assertion operator.
  - *probably* modifies the contextual threshold of assertion operator
- But this can be done in a different way: *context probabilism* (Yalcin 2012; Moss 2018)

Details of morphosyntax
- Intonation?
- Gunlogson (2003); Malamud & Stephenson (2015); Farkas & Bruce (2010); Jeong (2018); Farkas & Roelofsen (2017)
- Conventional means of attention modulation
- Interfaces with attention component of sentential force
- Sentence-final particles (e.g. Ettinger & Malamud 2014)
- What the hell about exclamatives?!

What exactly *would* count as an utterance force modifier?
- English declarative mood is not such a thing
- It is not an assertion operator.
- This is a subtle, but crucial point.
- “The operator-based view is represented by Starr (2013) and Charlow (2011), both of whom assume an assertion operator.” (Portner 2018)
- To count as an assertion, a speech act must generate commitments beyond the conversational context.
  - E.g. committed to retracting if stronger evidence for \( \neg p \) is discovered
  - Brandom (1983); MacFarlane (2011)
- \( c[\text{Assert}(\phi)] \) can only change commitments of conversational context.
- Therefore, it’s not possible for their to be an assertion operator.
  (Argument lurking in Murray & Starr 2018)
A project here, but it may be helpful to illustrate our approach for a couple of examples.

It will also involve specifying in detail the social norms that are responsible for bringing about these conversational states. We cannot even begin to carry out this project without a deep understanding of the social contexts in which utterances are used.

A population of language users. This is a rather expansive and daunting project which agents, it requires showing that utterances with the function are reproduced in the way can be understood as a solution to a coordination problem. The state dimension is crucial to explaining why merely mutually attending to things in a certain way can come to exist, they will never serve a consistent ways in which utterances coordinate agents' private commitments is needed.

...then explore theoretically whether these states could correspond to a communicative forces of different utterances by articulating different conversational states. One can achieve coordination of a sort and thereby acquire a communicative function. This brief illustration shows how our model allows one to distinguish the possible functions of an utterance of a declarative. It not only involves show how an utterance could coordinate the function (utterance force) by considering how they might coordinate the agents. To show that a particular utterance has given utterance force requires much more than clear. Could achieve coordination of the 'social memory' that they have put this information out there. Due to the role of this is a lie, so while states like states like...
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References II


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Thanks!
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