**Preliminaries for a Speech-Act Theory of Imperative Content**

**Introduction**

According to speech-act theories of assertoric content, an assertive proposition is derived from the underlying assertive act that the speaker performs while uttering the sentence. This suggests a unified theory of content including not just assertive content, but interrogative and imperative content as well. According to the unified view, interrogative content would be derived from the underlying interrogative act, and imperative content would be derived from the underlying imperatival act. In this spirit, Hanks insists that predicating is not "more basic or ontologically prior" (Hanks 2015: p. 24) than the other two forms of content, and Soames concludes his book-length defense of a speech-act theory of assertoric propositions by noting that the account should really be extended to the other speech acts of asking and ordering and the contents that they generate. He claims that this unification constitutes one of the "most important currently unsolved problems" (Soames 2015: 233) for speech-act theories of propositions. Despite Hanks' insistence of ontological parity, we believe Hanks himself would be the first to admit that his remarks, especially those concerning imperative content, are more suggestive than comprehensive. It is the concern of this paper to map some of the foundational issues for a speech-act theory of imperative content. While the paper is by no means conclusive, we hope it is enough to convince people that this is a view that ought to be taken seriously.

As noted in the literature, the linguistic phenomena surrounding imperatives are notoriously difficult.[1] Two outstanding issues include the essential, ontological nature of imperative content (e.g. whether they are structured propositions, sets of possible worlds, guides to action, or plans, etc.); and secondly logical embedding (i.e. whether imperatives embed under

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[1] For example, see Condoravdi and Lauer (2012), Portnor (2013), and Fox (2015).

logical operators as assertions do, and if so how?). Logical embedding raises a whole host of puzzling phenomena.[2] We believe that a speech-act answer to the first question provides some interesting answers to questions about the second. Rather than attempting to provide a complete, logical system for imperatives, we focus on two foundational issues as they pertain to embedding speech-act propositions in order to make the case that such a theory is a live option.

The first foundational issue concerns genuine logical embeddings of imperatives under logical operators. This generates a version of the Frege-Geach problem for embedding that rules out certain non-representational views of imperatives. In this way, the problem highlights Hanks' theory of speech-act imperative content as a new live option.

The second foundational issue concerns embedding under negation. Contradictory imperative pairs like 'Close the door' and 'Don't close the door' are opposites as a matter of their form; i.e. their unsatisfiability is analytic to the meaning of their contents. This follows in much the same way that contradictory assertions are opposites. Soames has argued that speech-act theory has to make sense of at least three different kinds of assertoric negation (Soames 2015: 31). They are illustrated by the following three sentences:

(1)     It is false that LeBron is the MVP.

(2)     LeBron is not the MVP.

(3)     LeBron is the non-MVP.

We call the first *sentence negation*, the second *content negation*, and the third *predicate negation*. Similarly, we claim, these three kinds of negation show up for imperative content as well. Consider the following three sentences:

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[2] Examples include: Ross' Paradox and the Good Samaritan Paradox. See Fox (2015: 321-324) for a detailed presentation.

(4) Make it false that the door is closed. [sentence negation]

(5) Don't close the door. [content negation]

(6) Open (i.e. *non-close*) the door. [predication negation]

We think that there are special difficulties in explaining content negation for imperative content, but we think these difficulties can be overcome with a speech-act account.

In summary, we highlight two problems that face embedding imperative language: a version of the Frege-Geach problem and a problem understanding content negation. In section one, we explain the first problem and show how a speech-act theory of imperative content has the resources for resolving the problem, and in section two, we explain the content-negation problem and show how a speech-act theory of imperative content can explain this as well. We hope that together this makes a speech-act theory of imperative content an attractive alternative to existing views.


**Section 1: Imperatives and Embedding**

It is typical to distinguish between *representational* and *non-representational* semantics for imperatives. In a representational semantics, imperatives have truth-conditions even if those truth-conditions are for the way the world should be rather than for the world as it actually is. For example, an imperative like 'Shut the door!' might express something like the set of possible worlds where the addressee shuts the door (Lewis 1979), or perhaps the modal proposition that the door should be shut (Kaufman 2012).

In a non-representational account, on the other hand, the semantic content of an imperative does not give truth-conditions for how the world should be but rather guides some action to be performed. For example, an imperative like 'Shut the door!' might express

something like the requirement of the addressee to put the proposition that the door is shut onto their To-Do list (Portnor 2004), or it might express the set of "strategies" consistent with shutting the door (Charlow 2014b).

If we take the *discourse function* of an imperative to be what resulting changes occur in the context of a dialogue after the use of the imperative, then representationalists think that the discourse function of the semantic content of an imperative is to "rule out ways the world could be" (Starr forthcoming). For non-representationalists, on the other hand, the primary discourse function of imperative content is not to rule out ways the world could be, but rather to direct action. We feel the pull of the pre-theoretic intuition that imperatives are neither true nor false but rather place demands on their addressees, and so in this paper, we focus on two potential problems for non-representational accounts of imperatives.

**§1.1: Do Imperatives Logically Embed?**

There is an abundance of complexity and controversy surrounding the question of whether imperatives successfully embed in logically complex sentences. Our focus is on what we take to be the obviously successful case of mixed embedding under disjunction (Starr forthcoming: 7):

(7)

    a.  Me: Put back *Waverly* or I'll put back *Naked Lunch*. I don't care which.

    b.  (Me: I'll put back *Naked Lunch* or you put back *Waverly*. I don't care which.)

    c.  You: I'm fine with either too.

The commutativity of the disjunct in (7a) along with the felicity of the second claim of neutrality present strong evidence that the imperative 'Put back *Waverly*' is embedded in a genuine disjunction in (7a).[3]  Consider the analog when a speaker asserts a disjunction where both disjuncts are assertoric. In this case, the speaker does not assert either disjunct:

(7')
  a. Me: LeBron is the MVP or Giannis is the MVP. I'm not sure which.

  b. (Me: Giannis is the MVP or LeBron is the MVP. I'm not sure which.)

  c. You: I'm not sure either.

In both cases of (7) and (7'), the speaker is only committed to the entire disjunction - hence the felicity of the claim that the speaker doesn't care which. The speaker is *not* committed to either particular disjunct, whether it is assertoric or imperatival. For example, if the hearer explicitly asks either:

(7d)    Are you ordering me to put back *Waverly*?

(7'd)   Are you saying that LeBron is the MVP?

the speaker should rightly respond negatively, and that she is only committed to the entire disjunction rather than either particular disjunct.


**§1.2: Embedding Poses a Problem for Non-Representationalism**

From these observations about embedding arises a powerful argument against certain non-representational semantic theories of imperatives that parallels the Frege-Geach argument.[4]

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[3] This is in contrast to a non-genuine disjunctive embedding: e.g. "Put back *Waverly*, or I'll be bored to tears" that really acts as a disguised conditional; i.e. that I'll be bored to tears *unless* you put back *Waverly*. (Fox 2015: 319-320)

[4] See also Parsons (2012: 51) and Charlow (2014a: 624-626) for a similar worry.

If non-representational accounts of imperatives postulate some kind of pragmatic discourse function for imperatives as their core meaning (e.g. Portnor (2004)), and if imperatives can be embedded, then there are certain embeddings where the speaker is *not* performing the discourse function, and yet the imperative functions normally. In other words, if imperatives successfully embed under disjunction, then this shows that the Frege-Geach problem of embedding rules out semantic accounts of imperatives that identify the content with the discourse function. That discourse function is not fulfilled in embedding under disjunction, and yet the imperative retains its ordinary meaning. In other words, no discourse function for an imperative can be essential to its semantic content.[5]

There is another option: perhaps the meaning of the imperative is actually different when embedded. But then as originally illustrated by Geach (1965), that would invalidate inference patterns like disjunctive syllogism. Consider the following example:

Premise 1:     Put back *Waverly* or I'll put back *Naked Lunch*. I don't care which.

Premise 2:     Oh wait, I can't put back *Naked Lunch*.

Conclusion:   So put back *Waverly*.

For the inference to work, the disjunct in premise 1 must match the conclusion, and thus the imperative cannot mean something different when logically embedded. So just as the original Frege-Geach problem presented tremendous difficulty for non-representational theories of normative terms, it does the same for non-representational theories of imperatives. Many would take this as an indirect argument in favor of representational theories of imperatives, but prima

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[5] A related argument for this conclusion can be found in (Condoravdi & Lauer 2012: 54) where they point to examples of felicitous uses of imperatives where the speaker does not plausibly intend any addressee to put anything on their To-Do list; e.g. when privately wishing out loud for something, when writing instructions for a manual, when answering questions in an oral exam, etc. These cases lend support to the claim that no discourse function for an imperative can be essential to its semantic content.

facie, imperatives don't seem to say how the world is and do seem to be essentially demands for action. We are therefore hesitant to prematurely abandon non-representational theories.

There are a couple of observations worth pointing out here. First, the Frege-Geach argument against non-representational semantic views of imperatives just shows that the discourse function is not identical to the semantic content of the imperative; *not* that imperatives lack discourse functions entirely. Second, it is also worth pointing out that conceding that discourse function must be separated from semantic content does not show that force must be separated from semantic content. In fact, if we are correct Hanks offers a way of combining force with content but keeping these distinct from discourse function.

### §1.3: A Speech-Act Theory of Imperative Content

We think that the speech-act theory of content offers a natural way of preserving the intuitive non-representational theories of imperatives without running into Frege-Geach problems of embedding. One way to go here would be to invoke Hanks' theory of cancellation which holds that force is indeed carried inside the embedded sentence; it is just cancelled of its ordinary implications. This would mean, in effect, that the speaker of the imperative might indeed perform the discourse function central to an imperative's meaning only to cancel some of the conventional implications associated with this discourse function.[6] But, we think that speech-act theory has other avenues for solving this problem that we would like to explore in this paper. Since Hanks (2015) provides the most worked-out account of a speech-act theory of propositions, we will be working rather closely within his system, but our thoughts here are supposed to apply more generally.

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[6] This idea has been explored in the work of (Authors 2013).

In an instructive analogy, Hanks (2015: 22) compares predication to sorting marbles into piles. When we predicate, we pick up an object, inspect it to see if it matches a criterion G, and then place it either into an IN-G pile or an OUT-G pile. For simplicity, we could assume an extensional understanding of G in which case checking to see whether the marble matches G is just checking to see whether the specific marble being checked occurs on a list of all the G marbles,[7] While Hanks himself does not offer a similar analogy for imperative content, we think one is ready to hand. Imagine that some architect is planning on making a building consisting of colored marbles. Imagine further that the architect has a plan for each marble whether it is to made G or not. In this case, imperative content would amount to picking up each marble, checking the master architect's plans to see whether it was on the TO-BE-MADE-G list or not, and then placing it in the IN-TO-BE-MADE-G pile if it was on the list or the OUT-TO-BE-MADE-G pile if it was not. This captures the idea that assertoric content and imperative content have different directions of fit.[8]

Hanks introduces helpful notation with which to write down propositions as speech-act types. Hanks uses the symbol '⊢' to represent an assertion, '!' to represent an ordering, bold to represent a reference act type, small caps to represent an expressive act type. Accordingly, an assertive utterance of the sentence:

(8)     LeBron is the MVP

is a token of the following type:

(8*)    ⊢ <**LeBron,** MVP>

and an imperative utterance of the sentence:

(9)     LeBron, be the MVP!

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[7] With good reason, Hanks would most certainly not agree with an extensional understanding of predicate expression (Hanks 2015: 23), but it's a convenient shorthand.
[8] For the original explication of direction of fit, see Anscombe (1957: 56).

is a token of the following type:

(9*)    ! < **LeBron**, MVP >

In embedded contexts, Hanks thinks that the speech-act is still performed; it is just that the

normal implications of this speech are cancelled. For example, the speaker need not be

committed to its truth and is not trying to enter this proposition into the common ground (Hanks

2015: 94).

While our account does not depend upon a detailed understanding of cancellation, we

note it as well with the symbol '~'. So an assertive utterance of the following sentence:

(10)    It is false that LeBron is the MVP

is a token of the following type:

(10*)   ⊢ < ~⊢<**LeBron**, MVP >, NOT-TRUE>

This is to be understood as predicating the property NOT-TRUE of the tokened proposition ⊢

<**LeBron,** MVP>, but since the usual implications of tokening such a proposition are not in

force, a "~" is required.

But (10*) is not quite right. Hanks notices that in (10*) the cancelled proposition is being

tokened not so as to assert something but so as to be available as a target of a property, namely,

NOT-TRUE. In order to note this, Hanks introduces the notation of target-shifting, "↑" which alerts

us to the fact that a proposition is being tokened for the purpose of predicating about this

tokening (Hanks 2015: 99ff). So, (10*) should really be written as:

(10**) ⊢↑ < ~⊢<**LeBron**, MVP >, NOT-TRUE >

The target-shifting notation makes especially clear that what is going on in these cases is that the

speaker is predicating of their own act of predication. Instead of sorting objects according to the

property BEING THE MVP, they are sorting acts of sorting according to the property NOT-TRUE.

Hanks thinks that many different sentences can all be represented by the same type of notation. For example, he thinks that "assertions, statements, affirmations, explanations, predictions, warnings, confessions, conjectures, guesses or suggestions" (Hanks 2015: 196) are all examples of assertoric content and all would be represented by '⊢' when it came to representing their act type. Thus, whether a speaker asserts, conjectures, or guesses that LeBron is the MVP, what they assert, conjecture or guess is represented by:

(8*)    ⊢ <**LeBron,** MVP >

Similarly, for imperative content. Hanks reluctantly settles on the word "orderings" for the genus of practical language and takes it to include "commands, requests, promise, desires, intentions, wishes, hopes, and any other action or state with world-to-word/mind fulfillment conditions" (195). Again whether the speaker commands, promises or hopes that LeBron is the MVP, each of these speech acts would be represented by:

(9*)    ! < **LeBron**, MVP >

This observation is telling in the context of theories that take meaning to be essential to discourse function. If we assume that conjecturing that LeBron is the MVP has a different discourse function than asserting that LeBron is the MVP, or that hoping that LeBron is the MVP has a different discourse function than commanding LeBron to be the MVP, we get the result that items with different discourse functions can share the same content. But, and this is the crucial point, we get this even without accepting the force-content distinction. For example, let us suppose with Stalnaker that the discourse function of assertion is to update the common ground, but the discourse function of conjecturing does not aim to update the common ground. (Stalnaker 1999).

Now consider the following sentences and their propositional representations:

(11)    LeBron is the MVP [asserted]

(11\*)   ⊢ <**LeBron,** MVP >

(12)    LeBron is the MVP [conjectured]

(12\*)   ⊢ <**LeBron,** MVP >

(13)    Giannis said that LeBron is the MVP.

(13\*)   ⊢ ↑< <**Giannis**, ~⊢ < **LeBron,** MVP >, SAID>[9]

Just as (11) and (12) have the same content but have a different effect on the discourse function, so to the embedded content in (13) is the very same as the content of (11), it just has a different effect on the discourse function. In particular, when LeBron's being the MVP is tokened inside the sentence of (13), it is no longer meant to serve the function of updating the common ground. Hanks introduces the '~' to distinguish the embedded contents in (13\*) from the identical contents of (11\*) and (12\*). This might be to mark the distinction between having a different discourse function and having no discourse function. Whereas (11\*) differs from (12\*) in that it is used to express a different discourse function, the embedded content in (13\*) is meant to have no effect on the discourse function. It is *not* a different content. That, in embedded contexts, a speaker can token a content that has a different discourse function than in the unembedded context is no harder to explain than that different sentences with the same propositional content can have different effects on the discourse.

Similarly, suppose that Hanks agrees with Portnor that the discourse function of a command is to have the addressee add the imperative on to their To-Do list, but he (sensibly)

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[9] This content is interpreted to mean that Giannis and the cancelled proposition about LeBron's being MVP are asserted to be in the *saying* relation—see Hanks 2015: 150.

thinks that expressing a hope has a different discourse function.[10] Now consider, the following sentences and their propositional representations:

(14)    LeBron, be the MVP! [commanded]

(14*)    ! < **LeBron**, MVP >

(15)    Would that LeBron is the MVP [hoped]

(15*)    ! < **LeBron**, MVP >

(16)    Giannis told LeBron to be the MVP

(16*)    ⊢ ↑ < <**Giannis**, ~!< **LeBron,** MVP >, TOLD>[11]

Again Hanks distinguishes the embedded content in (16*) from the content in (14*) and (15*) by means of the '~', and we can understand this to mean that the content is the same even if the discourse function is different. Perhaps, we could even go so far as to say that `~' is meant to cancel any discourse function, but the point remains that just as (14*) and (15*) are the same content but do not have the same discourse function, so too the embedded content in (16*) is the same as (14*), but they do not have the same discourse function.

Importantly, however, this rejection of discourse function as being part of the content does not entail a reinstatement of the force-content distinction. After all, sentences that involve the exact same constituents, differing only in their direction of fit have different contents. For example, the propositions (11*) and (14*) are both composed of a reference act type that picks out LeBron and an expression act type that picks out BEING MVP, but they have very different contents. When it is asserted as in (11*), the constituents are combined in such a way that they

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[10] Portnor himself would insist that these different "subtypes of imperatives" all do indeed have the same force of requesting an update to a To-Do list, they just differ in their "pragmatic or sociolinguistic basis" (Portnor 2004: 237-8), but surely the idea of hoping does not involve any addressee. Again see Codoravdi and Lauer (2012: 56).
[11] We will have more to say on this later, but this is to be understood as asserting that the telling relation holds between Giannis and the cancelled imperative of LeBron being the MVP.

generate truth conditions. When they are commanded as in (14\*), the constituents are combined in such a way that they generate fulfillment conditions. There is no shared content between (11) and (14). So keeping discourse function separate from content does not mean that force must be separated from content.

**Section 2: Negative Commands**

**§2.1 The Problem and Some Preliminary Attempts**

It is one thing to say that a speech-act theory of imperative content can escape the Frege-Geach problem for embedding imperative content. It is quite another thing to give a speech-act explanation of embedded imperative content. While we will not provide such an account for all instances of embedded imperative content, we would like to present a solution to negative commands in the hopes that this most basic case will show how other instances of embedded imperative content can be accommodated. So let us start with two sentences:

(17)    Open the door!

(18)    Don't open the door!

We already have a speech-act understanding of (17):

(17\*)   ! <**Door**, OPEN>

Our task is to develop a speech act understanding of (18).

In the assertoric case, we already have the notation for this, namely the first order symbol for negation, usually '~' or '-' or '¬'. (Since Hanks uses '~' for cancellation, we will use '-' from now on.) What this symbol denotes is a function to generate *opposite content,* that is to say it is an operator that reverses the truth conditions of what comes after it. When P is true, -P is false

and when -P is false, P is true. This suggests a notational solution to our dilemma about negative commands, namely we can represent (18) as follows:

(18*)   ! -<**Door**, OPEN>

Where the '-' symbol is an operator that reverses fulfillment conditions. If P is fulfilled then -P is unfulfilled and if P is unfulfilled, then -P is fulfilled. But, of course, a notational solution is not really a solution at all. We must vindicate the notation by giving an act-theoretic interpretation of the symbol. What is needed then is a speech-act interpretation of the '-' symbol in the context of imperatival content like (18*). That is what this section seeks to accomplish. While we do not argue for its uniqueness, we hope to provide enough of an outline so that a speech-act theory of imperative content will be taken seriously.

Hanks himself is not much help here. He gives only one example of embedded imperative content, and it is a case of an attitude report. (Hanks 2015: 198). We have already given our own example of this above:

(16)    Giannis told LeBron to be the MVP

(16*)   ⊢ ↑< <**Giannis**, ~!< **LeBron,** MVP>, TOLD>

The speaker predicates the telling relation between Giannis and the act of performing an imperative. The speaker does not herself perform the imperative although she tokens it. In these target shifting cases, imperative acts are talked about, but imperatives themselves do not embed other imperatives. It seems clear that nothing like this is going to work for negative commands. Negative commands are themselves commands; they are not a way of talking about a command.

A first attempt here might try to understand the command as actually a positive command to avoid opening the door. On this interpretation (18) is the same as:

(19)    Avoid opening the door.

We could understand this in a speech-act way by assuming that opening and avoiding opening are opposite properties. Sentence (19) conflicts with (17) because "avoid opening" and "opening" are opposites. We might write the act-type as follows:

(19*)   ! <**Door**, AVOID OPEN>

Negative commands turn out to be positive commands of a very special opposite content. But, sentences (18) and (19) pretty clearly don't mean the same thing since if I fall asleep on the couch, I'm not avoiding shutting the door even if I am not opening the door. But if that were the main problem with interpreting (18) as (19), then then we might search around for a better word than "avoiding". The problem is that the failure of identification seems to be that avoiding something is something that one intentionally does whereas not doing something need not even be something you are aware of. In other words, "avoiding" is the perfect word for actively not doing something. The problem is that actively not doing something is just not the same as simply not doing it. This undercuts the whole strategy that (19) represents.

A second attempt might be to understand the imperative as having wide scope with a negative descriptive assertive proposition as its content. In Hanksian notation this could be written:

(18')   ! $\uparrow < \sim \vdash$ <**Door**, OPEN>, NOT-TRUE>[12]

If we assume that Portnor was right about the discourse function of imperatives, we would get the following interpretation of this imperative content. The speaker attempts to get the addressee to put a certain practical content on their To-Do list: make the assertive proposition that the door is open not true. This would of course not really involve embedded practical content but that might be thought to be an advantage since that is what allows us to easily explain what is going

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[12] We will use the symbols single-prime (i.e. ⌜ ' ⌝) and double-prime (i.e. ⌜ '' ⌝) to represent proposed semantic contents of sentences that we think are incorrect.

on. This interpretation has the implication that what we would be writing down on our To-Do list is not something about doors at all, but something about propositions. We would be trying to bring it about that a certain assertoric proposition was NOT-TRUE.

Perhaps, what we need is not an imperative about declaratives but an imperative about imperatives. Hanks himself thinks this when it comes to assertoric propositions, while there are many different kinds of negation the central one for Hanks is what we have called *sentential negation*. When a speaker asserts that:

(20)    LeBron is not the MVP

Hanks thinks that thinks that this sentence can be written in propositional form as follows (Hanks 2015: p. 100):

(20*)    ⊢ ↑ <~⊢<**LeBron**, MVP>, NOT-TRUE>

Notice that according to this understanding there are two predications taking place. The first predication, the cancelled one, predicates BEING MVP of LeBron. The second predication, the one with widest scope, predicates NOT-TRUE of the predication of BEING MVP to LeBron. In other words, it is a sorting that takes other sortings as its object and checks them against the NOT-TRUE property. If we wanted to stick as closely as possible to this double sorting, then perhaps when translating "Don't open the door!" we should just replace '⊢' with '!' to get the following:

(18'')  ! ↑ <~!-<**Door**, OPEN>, UNFULFILLED>

This has some initial plausibility, and we could interpret it along the lines of Hanksian double predication. First there is the cancelled command of opening the door, but there is also the wide scope imperative which instructs us to make it the case that a certain command is unfulfilled. If double predication is understood as a sorting on sortings, double imperatives can be understood as instructions about instructions. In particular, it tells the addressee to make a certain set of

instructions remain unfulfilled. This is certainly the sort of thing that could be the content of an instruction. Imagine that you see the enemy commander issuing orders and you send off your own troops with the following instructions:

(21)     Make sure that whatever order she just gave goes unfulfilled.

This would also be an instance of a genuine practical embedding.

While there are certainly cases of embedded imperatives that ought to follow the pattern in (18''), we do not think that this can be the right way to represent (18) (i.e. 'Don't open the door'). Our main objection to this as a translation of (18) is that (18) should be inconsistent with (17) (i.e. 'Open the door') AND this inconsistency should be transparent. As Unwin and Schroeder have forcefully pointed out, a logical notation should be able to explain why two contents are inconsistent and this inconsistency should be a matter of logical form.[13] As a translation of (18), (18'') does not satisfy this constraint. Consider first the sentence which is being negated as well as its Hanksian translation:

(17)     Open the door.

(17*)    ! < **Door**, OPEN>

But compare this to (18''):

(18'')   ! ↑ <~!-<**Door**, OPEN>, UNFULFILLED>

(18'') and (17*) do not contradict each other as a matter of form since they are not even about the same object. It would seem that the natural negation of (18'') would be something like this:

(22*)    ! ↑ <!-<**Door**, OPEN >, FULFILLED>

Instructions to make a certain set of instructions unfulfilled are naturally contradicted by instructions to make that set of instructions fulfilled. But surely, simply instructing someone to

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[13] See Unwin (1999) and Schroeder (2008).

open the door (17) is not the same thing as instructing someone to make sure that the open-the-door instructions are fulfilled (22*). In other words, in this section we have considered the possibility that the negation of (17*) can be written as (18''), but we have also seen that the negation of (18'') is naturally understood to be (22*), and that (17*) ≠ (22*).

## §2.2 Our Solution

What we are looking for, then is a way of capturing negative commands which makes it clear why the positive command and the negative command cannot both be fulfilled at the same time. Let us start with an example of what we have in mind by giving a brief speech-act theory of the '-' symbol in the context of assertoric propositions. Our task is to give a speech-act interpretation of this symbol when used in expressions such as:

(23*) ⊢ -<**LeBron**, MVP>

In particular, we need to explain what exactly a speaker does in uttering a sentence that can be expressed by (20) (i.e. 'LeBron is not the MVP) such that it has the opposite truth conditions from propositions like:

(24*) ⊢ <**LeBron**, MVP >.

Although Hanks does not provide a speech-act theory to explain '-', we think that a speech-act theory of content negation can readily be given.[14] The basic idea is to use successive sortings rather than the sortings on sortings that we saw from the previous section. To see how this works, start with Hanks' idea of predication as a kind of sorting and then add to that the capacity to keep track of previous sortings. What this allows us to do is to use previous sortings as a criterion for future sortings. We have seen that ordinary predication can be thought of as

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[14] See Authors forthcoming.

picking up an object checking to see whether it matches an original criterion, $G$, and then placing

it in the IN-G or OUT-G pile. Successive predication allows us to take a new criterion $R$ that

references an old sorting criterion. We could, for example, make a new criterion, call it NEG$_G$ =

WAS-PREVIOUSLY-SORTED-IN-THE-OUT-G pile so that IN-NEG$_G$ means it was previously sorted in

the OUT-G**,** and OUT-NEG$_G$ means it was not previously sorted in the OUT-G pile. But, of course,

this is just what we need for negation. In particular, it is impossible for an object to be sorted into

IN-G and IN-NEG$_G$ at the same time or OUT-G and OUT-NEG$_G$ at the same time since the conditions

of being sorted in the one are just the opposite of the conditions of being sorted in the other. In

other words, IN-NEG$_G$ has the opposite truth conditions of IN-G. We believe that this interpretation

in terms of successive predication vindicates the use of the '-' symbol and allows us to use it in a

speech-act theory of negation.

      To construct a speech-act theory for expressions of the form ⌜ !-<**a**, F> ⌝, we will follow

closely the assertoric account given in the above paragraph and develop an idea of successive

imperative content. Imperative contents are the sorts of things that can be intended, desired,

commanded or requested. If a speaker commands someone to do something, then what she has

commanded is an imperative content. Despite the awkwardness of saying that we command or

intend an imperative content, we have stuck with this wording because we want to stress the fact

that content need not be accepted or endorsed in order to be imperative content. As Hanks and

Soames emphasize, a content of any sort is an act *type* not a tokened action. This means that

content is something that a speaker *can* token but it is not itself a tokening. We don't use the

more usual words of "command", "plan", or "intention" because each of these words can be used

to talk about the tokening rather than the type. An imperative content is a certain way the world

could be that we have not yet committed to. It asks for our commitment, but it doesn't quite have

it. Since it asks for our commitment it is not non-committal in Soames' sense. In Portnor's terminology, an imperative content is something that could be put on our To-Do list, and to accept an imperative content is to in fact put it on our To-Do list.

In the marble sorting analogy, we imagined picking up an object, applying a criterion, G, and then placing the object an IN-G pile. But IN-G could also be thought of as IS-IN-G which is clearly assertoric. What we need then is a different way of applying a criterion to an object. Recall that we have understood imperative content as picking up an object, checking it against a criterion of whether or not it is to be made G or not, and then putting it in a TO-BE-MADE-G pile or the NOT-TO-BE-MADE-G pile. Just as we inspect our marble to see whether it is green, we could also inspect our marble to see whether it is to be made green. In the assertoric case, we use the criterion to check to see whether the marble's being green matches how the world is. In the imperative content case, we use the criterion to see whether the marble's being green matches the plan on how the world is to be. Recall also our way of making this concrete. We imagined an architect has drawn up plans for how these different marbles are to be colored, and, as we consult the architect's plans we put each one in the TO-BE-MADE-GREEN pile or the NOT-TO-BE-MADE-GREEN pile. There is a potential disanalogy here because in the case of imperative content there are many plans against which an object could be checked to see if it is TO-BE-MADE-G or not whereas in the assertoric case there is a unique way the actual world is against which an object is checked to see whether it is G or not. We think that the disanalogy is not a very deep one. In fact, it is natural to think as the assertoric procedure to apply even in possible worlds, where we ask whether an object is G in world T.[15] To believe that the object was in fact G would be able to (at

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[15] It's common among formal semantic theories to relativized truth to both worlds and times; e.g. see (Kaplan 1989). So if the marble sorting metaphor was extending to account for truth in the assertoric case, it would be natural to incorporate possible worlds into the metaphor.

least partially) locate our world in the space of possible worlds. Similarly, we could think of different possible plans as fixing different instructions on what to do with an object relative to G and adopting a plan would be to select out one of these possible plans as what you are to do.

Successive imperative content could be understood as follows. We make how something was sorted according to another plan itself a sorting criterion for this plan. In our metaphor of an architect giving instructions on how to color different marbles, we could imagine one set of instructions referencing another set of instructions. Suppose, for example, that one set of instructions lists out all the marbles that are to be made green, then successive imperative content would allow us to make reference to this previous set of instructions. NEG$_G$ would then be defined as follows: if a marble was not put in the IN-TO-BE-MADE-GREEN pile in the previous plans, then according to the current plan, it is to be put in the TO-BE-MADE-GREEN pile and otherwise it is not. A marble can't be subject to both plans at the same time. If it is to be made green according to G, then it need not be made green according to NEG$_G$ and vice-versa. Returning to our metaphor of an architect, we could imagine that one architect, call him *Architect* gives us a detailed list of which marbles are to be made green and which ones are to be left alone. Imagine further that *Rival* (who wants to undo Architect's work) would give us the following instructions: if Architect's instructions tell us to make it green then don't and if they don't, then do. It is clear that you can't follow both sets of instructions because they have opposite fulfillment conditions.[16]

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[16] One important question that this picture leaves unanswered has to do with its ability to distinguish negative imperative content from a lack of imperative content. After all, a positive command not to open the door is different from simply not making any command at all. However, when we evaluated imperative content by thinking of it relative to a master plan we seem to elide this distinction because the master plan is assumed to be completely specified and binary. The plan specifies of every marble whether it is to be made green or left alone. This allows one plan to "undo" another plan simply by doing the opposite binary action. This raises real worry that our account will elide the distinction between not being commanded to do anything and being commanded to do the opposite. We think this obstacle can be overcome (see Authors 2014), but for now we just want to admit the problem, and hope

Return then to the sentence and its semantic content:

(18)    Don't open the door!

(18*)   ! -<**Door**, OPEN>

We have been arguing that '-' can be understood as successive predication. In other words, a speech-act theory should understand the '-' as generating the new predicate NEG$_{OPEN}$. Although this might plausibly be thought of as generating a new predicate that applies to the reference act type **Door,** we think that successive predication does not operate on predicate act types but actually operates on the whole proposition. To operate on predicate act types would be to create an opposite predicate (e.g. *non-open*), and as we have shown, this proposal cannot make the contents of (17) (i.e. 'Open the door!) and (18) directly contradictory. Successive sorting is to sort according to the deepest embedding, keep track of the results, and then sort again according to the next higher level of embedding. This is why it is correct to leave the proposition act type within the scope of the '-' symbol in (18*).

**Conclusion**

It is natural to think that imperatives cannot be true or false and that this means that their semantic content must be different from the representational semantic content of assertions. But non-representationalism about imperative content runs into some well-known difficulties involving embedding. While there are certainly extant, non-representational views about imperative content that offer solutions to these difficulties, we have argued that a speech-act theory of imperative content should also be on the table. In particular, we have shown that a speech-act theory of imperative content has two interesting consequences for embedding content.

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that what we have said is enough of a sketch to make a speech-act theory of negative imperatives a legitimate candidate.

The first is that it distinguishes between discourse function and content so can reject the force content distinction without thinking that embedded imperatives commit the speaker to the ordinary discourse commitments entrained by uttering an imperative. The second is that a speech-act theory of imperative content can helpfully explain the notoriously tricky idea of negative commands. In particular, the idea of successive content can explain how two different speech-acts can have opposite contents. If we are successful in showing that a speech-act theory of imperatives can solve these problems, we hope that it will be considered as a viable non-representational alternative. Although we have made no attempt here to compare a speech-act theory of imperative content to other non-representational theories, we would like to note two things that a speech-act theory of imperative content has in its favor. First, a speech-act theory of imperatives is a natural outgrowth of a speech-act theory of assertoric content. Any theory that makes speech-acts central to the content of assertions demands that there be a counterpart theory about imperative content. Secondly, we hope to have shown that this counterpart theory has natural solutions to some of the immediate challenges that non-representational theories face.

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