



Cognitivism, Non-Cognitivism And Nate Charlow: A Critical Review

Dr. Debirupa Basu Roy
Associate professor
Department of Philosophy
Shri Shikshayatan College
Kolkata

Introduction

Imperatives have been widely considered to be neither true nor false. Accordingly, the logic of imperative has introduced satisfaction-values for the imperative sentences. This may rouse the question about the role of cognitivism in respect of the logic of imperatives. Many have accepted the cognitivist account in the area of imperative semantics. There are two kinds of cognitivist account found in the logic of imperatives. Some are in favour of reductionism, while some others consider imperatives as non-truth-functional. The second attempt has got comparatively better support than the former attempt and the defenders are some empiricists and logicians. Logicians are divided in two camps in respect of the reductionist account. While Peter B.M. Vranas developed a non-reductionist account of imperatives, Nate Charlow has offered a theory of modal non-cognitivism, which is found in his writing *Logic and Semantics for Imperatives*. The present paper is a humble attempt to reflect upon the workability and relevance of modal non-cognitivism as held by Charlow in respect of imperatives.

I

An imperative sentence is that which contains expressions like requests or commands. For example, Shut the door.

The sentence may be symbolically expressed as !P. [P =Shutting the door, != imperative operator]

Due to the lack of truth- condition it is not possible to include imperative sentences within the framework of classical two valued logic in its true sense. So logicians take endeavour to formulate a logical system for imperative sentences only. They feel the necessity to construct a logical system for imperative sentences because of the following reasons.

- a) An imperative sentence may be inconsistent with one another. For example,
 - i] Shut the door. [!P]

ii] Do not shut the door. [$\neg P$]

b) Inferential relations may be found between imperative sentences. An imperative sentence may work as a conclusion of an inference and imperative inferences may be proved to be valid or invalid. For example,

i) Move all the balls.

So, move that ball.

c) Imperative sentences may be connected with logical operators (like negation, conjunction, disjunction, implication and equivalence). This is an example of conjunctive imperative sentence.

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i) Respect your father and respect your mother.

Let us now consider the nature of imperative sentence followed by a brief account of logic of imperatives. Logic of imperatives have travelled a lot since the middle of twentieth century till date. We have Ernst Mally, Jorgen Jorgensen, R.M. Hare and Nicholas rescher to name a few among many.

Peter B.M. Vranas (2008)

We have got a full-fledged system of logic for imperative sentences in the writings of Peter B. M. Vranas. He admits the unbridgeable gap between declarative and imperative sentences. A declarative sentence deals with propositions, whereas an imperative sentence deals with prescriptions which include not only commands but also requests, instructions, suggestions etc.

He introduces two values, namely satisfaction and violation which are analogous to truth and falsity of classical two-valued logic. For example, 'Help him.' A prescription is an ordered pair of satisfaction proposition and violation proposition. These two propositions are logically incompatible propositions as both cannot be fulfilled at the same time. The prescription 'I' may be defined as an ordered pair of sets S and V (where S stands for the satisfaction proposition and V stands for the violation proposition) which may be symbolized in the following manner:

$$I = \langle S, V \rangle$$

It may be argued that the imperative logic would then be binary to classical logic. But the uniqueness and novelty has been retained by the distinction between unconditional and conditional prescriptions. Vranas claims that though an unconditional prescription has two values but a conditional prescription has three values, namely, satisfaction, violation and avoidance.

For example,

"If you love him, help him." or "Help him, if you love him."

The above prescription is

- a) satisfied if you love him and help him
- b) violated if you love him but do not help him
- c) avoided if you do not love him, no matter you help him or not.

Prescription $I = \langle S, V \rangle$

Context of $I = (S \cup V)$

Avoidance proposition of $I = \sim (S \cup V)$ [considering I be a conditional prescription]

Vranas is of opinion that prescriptions may be interpreted with logical connectives, namely, negation, conjunction, disjunction, conditional and bi-conditional in terms of satisfaction and violation criterion of prescription.

It is to note that among the logicians who dealt with imperative sentences there are some who favour the theory of reductionism. Logicians who admit that imperative sentences are reducible to indicative sentences, are called reductionists. They attempt to include non-descriptive sentences like imperative sentences within the frame work of two-valued logic by translating them into descriptive sentences. Philosophers who consider that imperative sentences possess different status and they are irreducible to descriptive sentences due to their performative feature are called non-reductionists. They hold that imperative logic can be established in parallel to classical logic by expanding its vocabulary by “!” like case of other extended logics, for example, modal logic. We find a non-reductionist theory in the system propounded by Peter B. M. Vranas.

II

It is time to focus upon the account of modal non-cognitivism which holds that it is not proposition but propositional concept which is the meaning of an imperative. Nate Charlow in his *Logic and Semantics for Imperatives* (2013) offers a new understanding for imperative sentences, namely Modal non-cognitivism. Before developing his system he makes a distinction between cognitivist and non-cognitivist approach for treating imperative sentences. According to the cognitivists, imperatives are claimed to express propositions having truth values, truth and falsity. But non-cognitivist approach is the approach of Speech- Act theory. Charlow next discusses modal cognitivism which assigns modal operators for imperative sentences. But he also holds that modal cognitivism is an illusion. After rejecting modal cognitivism he develops non cognitivism. He says that modal noncognitivism retains the apparent virtues of modal cognitivism. He talks about the semantic notion of imperative language which may be built at the meta-level on the ‘top of’ the first order language.

Let L be a first-order language. The imperative language L_{imp} is the smallest set such that i) L is the subset of L_{imp}

(ii) If $\phi \in L$, then $!\phi \in L_{imp}$

This language for imperative contains both first-order logic as well the imperative operator ‘!’ which indicates the “force” going beyond the sentence. Following the imperative language the language of conditional Imperatives (CI) may be formed. L_{imp} may be used to represent the form $!(\phi \rightarrow \psi)$. For example,

If it rains, take the umbrella (but leave the sunglasses)

$!(\phi \rightarrow (\psi \wedge \neg \chi))$

Charlow attempts to show that it is the semantics of a sentence that explains the function. He makes a distinction between indicative and imperative sentences in the following way. Indicative sentences may be treated as functioning to give cognitive instruction, thereby resolving different types of cognitive issues, viz., issues of believing, pursuing etc. In case of imperative sentences, this account gives stress on a natural understanding of the function. This understanding is that an imperative dictates an agent how to plan and not what to believe. By uttering an imperative the speaker instructs the hearer how to plan and not what to believe. On the other hand, normal indicative sentences with representational use function around cognitive issues to be resolved. It tells the agent what to believe.

An imperative $!\phi$ expresses a property of plan. A plan has a property when the plan is in line with how the imperative tells the agent to plan. “To an approximation, the property a plan has if it is decided on ϕ ”. Similarly in case of $!\neg\phi$, it expresses a property when it is tolerant of $\neg\phi$. Following is the structure that Charlow proposes as a semantic methodology for dealing with object-language.

1. Retain the core of traditional model-theoretic semantics: in a sentence ϕ , if the entity e meets the condition specified by the sentence, then ϕ receives a positive verdict relative to e .
2. Declaratives place conditions on sets of possible worlds. Such sets are abstract representations of an agent's information.
3. Imperative sentences place conditions on sets of action-descriptors. Such sets are abstract representations of an agent's plan.

To explain it more, a possible world here is a set of atomic sentences. Propositions are typed as sets of sets of atomic sentences. Atoms are what are true at that world. An atomic declarative p holds at a set S of possible world iff for every $w \in S$, $p \in w$. We can have a recursive table in this respect:

$$S \models p \text{ iff } \forall w \in S : p \in w$$

$$S \models \neg\phi \text{ iff } \forall w \in S : \{w\} \neq \phi$$

$$S \models (\phi \wedge \psi) \text{ iff } S \models \phi \text{ and } S \models \psi$$

$\|\phi\|$ is the set of possible world at which ϕ holds. When ϕ is declarative, $S \models \phi$ iff S is the subset of $\|\phi\|$. Here only a cognitive element is added: p holds at S iff at every world compatible with S , p , iff S "believes" or "accepts" p .

In case of imperative:

- Imperatives tell a person what to plan
- Imperative of the form $!\phi$ tells this by encoding the property a plan has if it is decided on ϕ . Its semantic function is to partition plans along the expected lines.

Charlow has developed the details of plans as sets of action-descriptors. We can say in a nutshell that in case of an imperative $!\phi$ the plan must prefer ϕ worlds to $\neg\phi$ worlds. When the plan gets positive verdict, i.e., 1, then it meets this condition. This is the sense in which an imperative encodes the property which a plan has if it is decided on ϕ . An imperative tells an agent how to plan by encoding such a property.

We are not entering into controversy whether the imperative operator '!' and the modal operator 'D' are of the same semantic type. It is true that many thinkers point out that imperatives express a property of an action guiding semantic parameters. We may refer to Portner's account.

According to Portner's account there is a canonical relationship between semantic type and motivation force. In case of declarative sentences, this force is acceptance of some belief, while in case of imperative sentence, it is performing some actions. According to Portner, the semantic value of an imperative plays a secondary role in his theory of imperative meaning. Now as the action is so to speak the heart of imperative sentence, it cannot be the semantic value of an imperative. So far as Charlow rightly speaks of a close connection between semantic value of an imperative and its proposal of a plan, Portner's account is not acceptable in this respect.

III

It is now time to reflect on Charlow's theory of imperatives.

a) It is quite agreeable that imperatives are not evaluable in terms of truth-values: they do not have propositional content.

b) It is also agreeable to accept this account of semantics. A semantic theory for a sentence of any type is considered as a theory about what sort of cognitive instruction is made by that sentence. (It is unlike Porter who considered semantic value as secondary)

In the paper, we concentrate on the treatment of EPC referred as a view that imperatives express proposition. It depends upon the nature of proposition which is thought to give the meaning of respective imperative.

Charlow refers to two kinds of cognitivism —

i) Explicit Performative Cognitivism (EPC)

David Lewis's view

The semantic value of any sentence can be factored into a propositional content and something like a force factor. Both declarative and imperative sentences may be represented with the help of EPC in the following way.

The cat is on the mat.

→ assert (x) (that the cat is on the mat.)

The value of x is fixed by the context of utterance, relative to a context c. The semantic value of a sentence like 'the cat is on the mat' is given by the proposition that the speaker asserts that the cat is on the mat. It is called Explicit Performative Analysis. The declarative ϕ is identified with the proposition expressed by a performative sentence announcing its performance of the speech act that ϕ simply expresses.

Shut the window.

→ command (x) (y shuts the window)

Here the value of x and y are fixed by the context of utterance. The semantic value of an imperative like 'Shut the window', is thus given by the proposition the speaker commands that the addressee shuts the window. Such an analysis is called Explicit Performative Cognitivism.

ii) Modal Cognitivism

In the Modal analysis there is an identification in meaning between the following two sentences.

a) Attack at dawn!

b) You should attack at dawn

$[[!\phi]]= [[\Box\phi]]$

Modal Cognitivism represents the logical form of an imperative with the corresponding modal sentence.

Objection 1

It is agreeable that the following example is invalid though EPC considers it to be valid.

- a) Attack at dawn.
- b) Someone commands something.

Though EPC considers it to be invalid, Charlow considers to be invalid because the conclusion an imperative inference must be an imperative sentence though the premise may be a declarative one. But the conclusion is no longer imperative.

An objection, mild though, can be raised here. It awaits further discussion whether this example can be treated as a proper imperative inference. 'b' can be rather an interpretation of 'a'.

Objection 2

Let us consider Charlow's argument against cognitivism in general. Charlow considers the claim of the cognitivists as a pragmatic theory of truth and falsity but such an argument against flexible explanatory pragmatism about truth is highly debatable. It is not the question of manner or styles attached to truth or falsity of an imperative. It is more a matter of prescribing some action which is a different kind of speech-act.

Objection3

In respect of the theory of modal non-cognitivism, there are some other issues which need clarification.

- a) It is disputable to accept that cognitive instructions are "relatively thin things". The explanation behind such expression is this. The force of cognitive instruction is to provoke the addressee to accept the content of proposition. But when there is conflict with the agent's prior information, then the agent has to revise his stock of information in order to carry out the instruction. We must remember that the agent cannot simply add the proposition ϕ to her stock of beliefs. So, cognitive instructions are to be supplemented by revision of previous stock of information.

Herein lies a problem. If it is by the force of cognitive instructions that the agent has to revise the prior stock of knowledge then in what sense cognitive instructions are 'thin things'? The revision must be conservative with respect to those prior beliefs. Charlow however opines that this work of revision is the issue of epistemology, and not of natural language semantics.

- b) Secondly, what is more important is another issue. An imperative sentence by itself is one which is markedly distinct from normal declarative ones in the sense that "imperatives propose to make their prejacent required". So far the account is good. But imperatives get significance not by themselves, rather by being able to be united with other imperatives or declaratives in order to yield further conclusion. Human communication remains incomplete without this implicative consequence. This relational implication is no less important than the individual semantical study. Non-cognitivism plays a role in defining imperative statements so far as they contain elements of plan of action. But when the relation between premises involving only imperatives or both imperative and indicative sentences is to be taken into account, it is more a matter of cognitivism to determine whether the conclusion they seem to lead is really derivable or not. It is a collective discourse rather than an individual affair. It is true that we come across many imperative inferences in our everyday life. For example,
 - i) Put all the balls of different colours into the box.
So, put only red balls into the box. [Pure imperative inference]
 - ii) If you want your car not to be stolen, keep your car alarm on.
You want your car not to be stolen.
So, keep your car alarm on. [Mixed imperative inference].

It is however true that imperatives have properties of plans, and not propositions as their semantic values. We can however very well draw a similarity between an imperative and a declarative sentence in the following way. In both the cases there is a semantical specification of a property which the respective agent can try to “psychologically approximate”. In case of an imperative sentence $!\phi$, an agent approximates the property which is semantically specified by the sentence. Here the plans are so adjusted that they could be represented as being such that ϕ is required with respect to them. In this sense it is rightly marked that there is a general connection between semantics and characteristic function. Charlow prefers that the theory should get advantage of Modal cognitivism. The theory should assign truth-conditions to imperatives in the sense that it ascribes truth-of-a-plan conditions. An imperative is true of a plan Ax just if its corresponding modal sentence is true relative to Ax . Similarly, the predicate P is true of an object b just if the sentence $P(x)$ is true relative to an assignment mapping x to b .

The question remains: is an imperative true or false? According to Charlow, this question definitely is not speaking of grammatical ascription. In fact, an imperative encodes a picture of the world to-be. Imperatives have so to speak, ‘directional’ perspective, they may have conditions to fulfill, but they are neither true nor false.

Comment 1

Charlow’s account does not prove that the function of resolving cognitive issues is something that falls within the area of declarative sentences only. This function is very well witnessed in inferences involving imperative sentences.

Comment 2

So taken individually an imperative sentence may be interpreted, though in a limited sense, in the model of modal non-cognitivism, but it remains a question whether such model can justifiably explain the cases of imperative inferences and more importantly the issue of validity of such inferences.

References

1. Charlow, Nate. (2014) Logic and Semantics for Imperatives, *Journal of Philosophical Logic*;43, 617-664]
2. Hare, R.M. *The Language of Morals*, Oxford University Press, Great Britain (1952)
3. Jorgensen, Jorgen. Imperatives and Logic’, *Erkenntnis* vol-7 (1937-38) pp. 290. (In Moutafakis, Nicholas J. *Imperatives and their logics*. New Delhi: Sterling, 1975),
4. Mally Ernst. Grundgesetze des Sollens, *Elemente der Logik des Sollens*, Leushner-Lubensky, 1926, Graz.pp. 229-324. (In Moutafakis, Nicholas J. *Imperatives and their Logics*. New Delhi: Sterling, 1975).
5. Portner, P. (2004). The semantics of imperatives within a theory of clause types. In K. Watanabe & R. Young (Eds.), *Proceedings of SALT 14*. Ithaca: CLC Publications. <http://semanticsarchive.net/Archive/mJlzGQ4N/>.
6. Portner, P. (2007), Imperatives and modals. *Natural Language Semantics*, 15, 351-383, doi: 10.100/s 11050-007-022-y.
7. Rescher, Nicolas, *The Logic of Commands*, Dover Publication, 1966, New York.
8. Starr, W.B.(2011) A preference semantics for imperatives, Ms
9. Segerberg, K. (1990) Validity and satisfaction in imperative logic. *Notre Dame Journal of Formal Logic*, 31, 203-221. doi;10.1305ndjfl/103635415.
10. Vranas, Peter B.M (2008). New foundations for Imperative logic I, Logical connectives, consistency, and quantifiers, *Nous*, 42.