Instructive Attitudes

Abstract:

According to what I’ll refer to as the “standard model,” the mental states the explain actions are propositional attitudes—in particular, beliefs, desires, and intentions. Their representational contents are propositions or some other truth-, veridicality-, or accuracy-conditional content, and attitudes are distinguished by their causal role and/or direction of fit (satisfaction). My aim here is to demonstrate that it may be possible to explain at least some types of action in terms of mental states like belief and desire, as well as how such states rationally combine to generate action, while 1) replacing truth conditional content with a more practically oriented kind of content (§ I and §II) and 2) inverting the relationship between beliefs, desires, and intentions as it’s construed on the standard model (§ III and §IV). That is, where the standard model treats intentions as the products of combinations of beliefs and desires, my alternative treats intentions as basic and beliefs and desires as derivative.

Introduction

According to what I’ll refer to as the “standard model,” mental states are propositional attitudes. Their representational contents are propositions or some other
truth-, veridicality-, or accuracy-conditional content, and attitudes are distinguished by their causal role and/or direction of fit (satisfaction).

The propositional attitudes that matter most for action explanations are beliefs, desires, and intentions; other propositional attitudes (e.g. speculating, wishing, hoping) are generally understood as variations on these. Propositional attitudes mirror traditional accounts of linguistic representation which distinguish between content (propositions) and illocutionary force. Indeed, it is natural to think of beliefs as the mental state analogs of indicatives (declaratives) and desires as the mental state analogs of imperatives (commands). Similarly, the idea that mental representational content will have constitutive truth (veridicality or accuracy) conditions stems from a deeply entrenched picture of linguistic meaning as consisting in the expression of propositions, i.e., truth values. ¹

The Standard Model is sometimes referred to as the “Humean Model.” According to a popular exegesis, Hume argued that 1) cognitive states but not emotions are representational and thus rationally evaluable, and 2) emotions but not cognitive states are motivating. ² The standard model diverges from Hume’s psychological model by positing that motivating states like desires (and perhaps emotions) are also contentful. In so doing it secured the advantage of being able to explain how beliefs and motivating states like desires rationally combine to generate intentional action. But the standard model follows Hume both by distinguishing the functional role or direction of fit of motivating states like

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desires and by treating beliefs that aim at truth or falsity as the paradigm contentful states. Accordingly, the model assumes that the content of beliefs is propositional and attempts to extend this content to desire by distinguishing content from attitude.³

I propose a more radical break from the Humean model. My aim here is to demonstrate that it may be possible to explain at least some types of action in terms of mental states like belief and desire (or perception, emotion, and other affective and/or homeostatic states), as well as how such states rationally combine to generate action, while 1) replacing truth conditional content with a more practically oriented kind of content (§ I and §II) and 2) inverting the relationship between beliefs, desires, and intentions as it’s construed on the standard model (§ III and §IV). That is, where the standard model treats beliefs and desires as basic (intentions are products of combinations of beliefs and desires), my alternative treats intentions as basic and beliefs and desires as derivative.

I developed this alternative with an eye to its implications for debates on topics ranging from the nature of intentions⁴, to explanations of non-human animal action⁵, to the role of emotions and affective states in action explanation⁶, to the rational evaluability of motivating states such as emotions,⁷ and beyond. I haven’t the space here to develop any of these debates as motivating my alternative. Hopefully my reader will find the possibility of a radical break from the standard (Humean) model sufficiently interesting on its own.

I. Instructive Content⁸

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³ See also Railton 2005.
⁵ See e.g. Davidson 1982; Hurley and Nudds 2006; Millikan 2006; Dretke 2006; Camp and Shupe 2017.
⁶ See e.g. Döring 2003; Pacherie 2002; Deonna, J. A. and F. Teroni 2015; Reisenzein, 1996.
⁷ See e.g. Srinivasan 2018; Nussbaum 2001, 2016.
⁸ Somewhat similar views are developed by Cussins 1990, Millikan 1984, 1996, 2006; and Cummins 1996.
According to the “teleo-functional” analysis of original intentionality, the property of aboutness obtains of something that a) stands in some triggering-causal or information relation to the thing(s) it’s about, and b) essentially bears the function to represent the thing(s) it’s about; it functions to represent.⁹ Elsewhere I defend an analysis of representational function, but there is not room here to repeat that defense, and anyway I hope it is sufficiently plausible to, as it were, stand on its own two feet.¹⁰ According to my analysis, something functions to originally represent iff it functions as a category of understanding. Something functions as a category of understanding iff it functions as a subject’s possession of a “type of solution” to a “type of problem.”

A type of problem is defined in terms of a type of need N that’s instrumental in a subject’s flourishing, and a type of situation S. A type of solution is a type of response (action) A. Something that exists to function as a type of solution to a type of problem essentially solves a coordination problem: that of mapping a type of action A to a type of situation S and of mapping that coordinate (A, S) to a type of need N such that (A, S) promotes the subject’s flourishing with respect to N.

I propose that subjects possess types of solution to types of problems by virtue of possessing “Intention- or I-dispositions.” I-dispositions have three components: an S-input component that responds to types of situations, and N-input component that responds to types of needs, and an A-output component that prepares the subject to produce a response. I-depositions essentially constitute categories of understanding by virtue of

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¹⁰ See Author (unpublished).
being selected through evolution and/or learning because they solve the relevant coordination problems.

I-dispositions stand for their solutions, i.e. action-types which are individuated by the type of need(s) and situation(s) (targets/objects) the I-dispositions exist to serve together with the type of response (movements, broadly construed) they exist to produce in their service. I-dispositions realize instructive categories deployments (activations) of which constitute instructive representations.

Instructive representations constitute non-descriptive modes of presentation of actions and their targets. In other words, where the content of classical concepts has the form “is F,” or “is an F,” an instructive category has the form “[do]-φ” where “φ” is the type of action the category instructively stands-for. Instructive categories are applied on or to occasions (or situations) which contextually determine a token action of the type the category stands-for.

Token instructive contents have the form:

“φ-THAT-THUS!”

“THAT” indicates the contextually supplied target of the action, i.e. the singular element (particular, object, event, etc.). The contextually supplied target (or lack thereof--see below) often together with other features of the context determines the “THUS”, i.e. the particular string of instrumental acts that comprise a token complex action and their particular parameters. That is, “THUS” determines which of several possible realizations of a type of action the token takes; a particular way of φ-ing. “THAT” and “THUS” collectively
individuate the content of tokens belonging to a type. “!” is a force-indicator; it corresponds to the force (compare: intensity) of an instruction.

Instructive contents have constitutive appropriateness conditions rather than truth, veridicality, or accuracy conditions. An instruction “ϕ-THAT-THUS!” in context C at t is appropriate iff were the subject to ϕ the target in C at t corresponding to THAT in the manner or way corresponding to THUS, ϕ-ing in C at t would promote the subject’s flourishing with respect to N. Because appropriateness conditions are hypothetical, instructions may (and often do) succeed even if they are not executed.

II. Instructive Representations

Activating an I-deposition constitutes a deployment of the instructive category it realizes. That is, activating an I-deposition constitutes an instructive representing, i.e. being
in an instructively contentful state. Different ways of activating I-depositions therefore yield different ways of deploying instructive categories; they correspond to the distinctive psycho-functional roles to which instructive content is put. In this section I’ll explain how distinct “attitudes” can be identified with distinct ways in which I-dispositions can be activated and the different contributions S- and N-inputs make to token instructive contents (Recall that “S” corresponds to “situation” (or, more precisely, “external context”, and “N” corresponds to “need” (or, more precisely, “internal context”)).

An I-disposition can be activated via its S-input, N-input, or both. S-input activations (or S-activations) constitute S-instructions. N-input activations (or N-activations) constitute N-instructions. Simultaneous S- and N-input activations constitute total activations or I-Instructions. I argue that S-instructions correspond to beliefs, N-instructions to desires, and I-instructions to intentions.

S-instructions determine token actions by supplying situational targets (THAT) where these contribute to the determination of the “manner” of the token action, i.e. the (THUS). In the illustration below, Peter Rabbit’s visual experience of a carrot S-activates his “Eat” I-disposition; it S-instructs him “Eat-THAT [the carrot]-THUS!”

11 “Internal” means belonging to the subject (corresponding to needs). “External” means belonging to the situation/world. The same stimulus can constitute an input for both internal and external contexts, i.e. can constitute both an S- and N-input. For instance, the visual perception of a cake may both provide an S-input and instruction (“Eat THAT!”) and make one hungry, i.e. provide an N-input and instruction (“Eat!”). Predators and noxious stimuli may provide other examples.
If Peter is not hungry (as is the case in the picture), then Peter will not execute the S-instruction. If Peter is hungry, it’s thanks to the S-instruction that he knows to eat the carrot. So S-instructions are like occurrent beliefs that are available to guide action but that may not be exploited to do so. 12

When Peter is hungry, his “eat” I-disposition is N-activated; his sensation of hunger N-instructs him to eat. So when Peter both sees a carrot and is hungry, his “eat” I-disposition is fully-activated and he has an I-instruction, i.e. an intention, to “Eat-THAT [the carrot]-THUS!”

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12 The “Eat” instructive category that’s realized by the I-disposition may be thought of as a sort of “standing” belief.
But consider a scenario (as pictured below) in which Peter is hungry, but there are no carrots in sight.

An N-instruction’s content is, in the absence of its S-instruction complement, “gappy” in that it lacks the indexically supplied target (THAT) provided by an S-instructions providing a target for eating. Still, N-instructions do not merely pick out action-types. Rather, N-instructions temporally individuate tokens of action-types. This, in turn, determines a kind of dynamic that determines the manner (THUS) of the token action. For tokens are individuated not just by targets but also by contextually determined “manners.”
The act of eating typically involves getting something to eat. What getting something to eat entails in any particular situation can vary a great deal. If you’re already sitting down at a table, it may require nothing more than grabbing your fork and digging in, as it were. Or it may involve going to your fridge and picking something out. Or it may involve foraging, and so on. These are all different course-grained manners of eating. Manners may also be individuated more finely: there are different ways of using your fork, getting to and exploring a refrigerator, and foraging, and which of the various ways your instructive representations prepare you to implement typically depends in large part on your context.

Manners often involve instrumental acts (locomoting, grabbing, attending, etc.). These are shareable output patterns tokens of which inherit the telos (corresponding to the need, i.e. N-input type) of the action-type to which they contribute. In other words, they should not be thought of more fundamental or basic acts out of which actions are built, but rather elements that are common to a number of different types of actions, and which can appear (or not) in different combinations in different tokens of the same types of actions.

So the timing, or more perspicuously, the context, of an N-instruction determines the manner of the N-instructed action. Context has both an inner and a dynamical outer aspect. The dynamical outer aspect is the environment and influences the manner via the available S-Instructions. If Peter is hungry and there aren’t any carrots, his token act of eating will begin with a search. How he searches will depend on the S-instructions he receives. But whether the act of eating in this manner ever gets started depends on the inner aspect of context. Peter may be Hungry, but he may also have just seen, heard, or smelled a predator,

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13 This picture was inspired in part by Hurley 1998.
e.g. a Fox, i.e. received an urgent “Flee-THAT (fox)-THUS (this way, speed, etc.)!” S-instruction. If Peter is “rational,” he will flee rather than start looking for carrots to eat.

Thus, having the I-instruction to “Eat-THAT [the carrot]-THUS!” is not sufficient for Peter to execute eating. For Peter’s flourishing is complex. He has different needs, and which are pressing or feasible changes with inner and outer context. Peter is (minimally) rational if he actualizes the I-instructions that constitutes a solution to a local need (a need he presently has; “(local) N”) that is also a global need (a need it is in his overall interest to prioritize; “(global) N”).

Peter’s instructive psychology is, in this way, “holistic.” To understand how this holism contributes to instructive contents without undermining their determinacy, it helps to think of instructive contents as hypothetical imperatives of the form:

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\text{If (local)N & (local)N=(global) N} \rightarrow \phi \text{-THAT-THUS}
\]
Note, however, that the hypothetical imperative is a merely theoretical device for modelling the appropriateness conditions of instructive representations as well as their rational dynamics; instructive representations are not and do not express hypothetical imperatives.

III. Instructive Attitudes

S-Instructions constitute the instructive analogs of beliefs. They are inappropriate when \( \phi \)-THAT-THUS would (if executed) not satisfy (local) N. The success of an S-instruction is similar to the success of a belief in that it depends on whether the target of the action (the thing in the world) is the right kind of thing for that action relative to (local) N; it depends on whether the instructed action would, with respect to the situation in the world that is its occasion/target, promote the subject’s flourishing with respect to the need for which tokens of that action-type, \textit{qua} solution, exist to serve. So, S-instructions misrepresent when their targets/occasions (external contexts) are inappropriate.

N-instructions constitute the instructive analogs of desires. They misrepresent, i.e. are inappropriate, when \( \phi \)-THAT-THUS would (if executed) not satisfy (local) N because (local) N does not obtain. In other words, N-instructions misrepresent when it’s the wrong occasion (internal context) for a token of the instructed action-type \textit{qua} solution. For if (local) N does not obtain, the subject’s flourishing cannot be promoted with respect to it--eating when you do not in fact need food can be deleterious to your overall flourishing. This helps to illustrate that while N-instructions are functionally similar to desires, they are not identical.

While S-instructions are more directly related to action (and action guidance) than (standard) beliefs, their success is, like beliefs, a matter of whether what they \textit{represent} is
appropriate. Of course, appropriateness is essentially related to what actions they cause if they are executed. Their role is thus to cause actions, but they do not fail if they do not cause the action. After all, the problem may lie in the mechanics of the body, rather than the contents of the mind, as it were. And whether instructive representations in fact cause an action, even in the normal or good case, i.e. when the subject is in a position to make “rational decisions,” i.e. select to execute the instructions that promote its overall well-being, depends also on whether the type of need an instruction serves is the or among the most pressing needs (corresponds to the most pressing problems), i.e. the “global” need(s), facing the subject at the time an instruction is given. And while N-instructions are functionally similar to (standard) desires in that they determine (locally and globally) which “occurrent beliefs” (S-instructions) will turn into actions and also depend on “beliefs” (S-instructions; dynamics) to generate actions, their success depends on appropriateness in much the same way as S-instructions.

So both N- and S-instructions play a quasi-indicative role in that the causal/functional and normative profiles of both involve sensitivity to states of affairs. N-instructions are “sensitive” to internal context the way S-instructions are “sensitive” to external context: External contexts (targets) occasion I-instructions, and whether an I-instruction is appropriate depends on whether the action with respect to that target (external context) would really be of service to the subject’s flourishing in the relevant way (with respect to the relevant N). Internal contexts occasion N-instructions, and whether an N-instruction is appropriate depends on whether the internal context (need) would actually be served by the instructed action, i.e. whether the relevant need obtains. In other words, S- and N-instructions differ not in what it is to go wrong (they go wrong by virtue of
being inappropriate) but in *how* they go wrong (in virtue of what they are inappropriate). S-instructions fail when they are not properly sensitive to external contexts. N-instructions fail when they are not properly sensitive to internal contexts. For example, I suffer an S-instructive illusion when, on seeing a wax apple, I’m instructed to eat it. I suffer an N-instructive illusion when I’m instructed to eat (I feel hungry) while not at a caloric deficit (perhaps while at a caloric surplus).

An I-instruction’s appropriateness depends on whether the simultaneous S- and N-instructions that constitute it are appropriate. In other words, an I-instruction misrepresents when φ-THAT-THUS *would* (if executed) not satisfy (local) N because either (local) N does not obtain or φ-THAT-THUS would not satisfy (local) N, i.e. the target.

### IV. Instructive Decision-Making

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<tr>
<th>Instructive Attitude:</th>
<th>Misrepresents When:</th>
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| **S-Instruction**     | φ-THAT-THUS *would* not satisfy (local) N  
*Because it’s the wrong action for that target/wrong target for that action relative to (local) N*  
-- *wrong occasion for that solution* |
| **N-Instruction**     | φ-THAT-THUS *would* not satisfy (local) N  
*Because (local) N does not obtain*  
-- *wrong occasion for that solution* |
| **I-Instruction**     | φ-THAT-THUS *would* not satisfy (local) N  
*Because either (local) N does not obtain or φ-THAT-THUS would not satisfy (local) N, i.e. the target*  
-- *wrong occasion for that solution* |
Whether a subject “decides” to enact an I-instruction, or which of a subject's I-instructions she “decides” to enact, depends on the dynamics of global dispositions/needs (note that rational animals may be able to intentionally manipulate these dynamics in a way other animals cannot). These dynamics correspond to what may be thought of as the “pragmatic force” of an instruction. Pragmatic force, in turn, corresponds to an I-disposition’s activation strength, represented by number of exclamation points ("!") in “ϕ-THATi-THUSi! i…” Pragmatic force (the number of !s) is a function of i) contextually determined input intensity and ii) etiologically determined connection strength.

The pragmatic force of an I-instruction determines how it will interact with other I-instructions. An infelicitous I-instruction distorts the relative urgency of a subject’s global needs and can contribute to I-instructions being executed at the wrong time. Hence the pragmatic force of an I-instruction impacts the rationality of an action it causes (or promotes) in terms of priority. Failures of correspondence between the relative pragmatic force of a subject’s I-instruction and the actual relative urgency of the needs they serve distort the priority ordering of a subject’s I-instructions. As a result, subjects may execute I-instructions that will not promote their overall flourishing in a situation-- the subject may execute an I-instruction whose (local) N component does not actually correspond to (global)N. Capacities associated with the “intellect” may enable humans to intervene on and correct distortions through deliberately re-training their s-dispositions (i.e., changing their habits).

Another pragmatic feature of instructive representations is “optimality.” For any instructive representation, ϕ-THUS may be (contextually) sub-optimal; a particular ϕ-ing-
THUS may be a means to some end, but it may not be the “best” means to that end. Unlike appropriateness, “best means” is a comparative kind of evaluative standard and may stand to measures of optimality as veridicality stands to measures of precision or accuracy.\textsuperscript{14}

\textbf{Conclusion}

While there’s much more to be said about instructive representations, attitudes, and decision-making, and how the account I’ve sketched compares against the standard (Humean) model, I hope this discussion is sufficient to demonstrate that it is worth exploring how radically philosophers may depart from that model and what they may stand to gain from doing so.

\textbf{Bibliography}

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\textsuperscript{14} See author 2017.


