Millikan 2/9

Philosophy of Mind, Spring 2017

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1 The big picture

1.1 Naturalism

A dispute that takes place in every area of philosophy is the dispute between **naturalists** and **non-naturalists**. A related dispute is how to *exactly* characterize the dispute between naturalists and non-naturalists.

Here's a rough and ready characterization of the dispute as it occurs in the philosophy of mind:

> NATURALISM
> Everything about the mind can be explained by appealing to facts about the natural world.
>
> NON-NATURALISM
> Naturalism is false. The mind can be explained only by appealing to facts that are not about the natural world.

For example, dualists, who posit the existence of an **immaterial soul** to help explain minds, are non-naturalists. Those who identify facts about the mind with neurochemical facts are naturalists.

1.2 Naturalizing content

An especially thorny issue for naturalists is explaining mental content. Ryder (2009: 251) puts it this way:

> John is currently thinking that *the sun is bright*. Consider his occurrent belief or judgement that the sun is bright. Its content is that *the sun is bright*. This is a truth-evaluable content. . . because it is capable of being true or false. **In virtue of what natural, scientifically accessible facts does Johnfis judgement have this content?** To give the correct answer to that question, and to explain *why* Johnfis judgement and other contentful mental states have the contents they do in virtue of such facts, would be to naturalize mental content.

Naturalizing is tricky because content does not initially seem explainable only with natural facts. It seems to be mind-independent. For example, content is something we share in common when we believe that *the sun is bright.* and whether *the sun is bright* is true is independent of whether John believes it.

The project of naturalizing content directly impacts whether content is wide or narrow. It may be harder to naturalize content while treating all content as narrow (e.g. individualism, internalism). The externalist may have an easier time by being less limited in her explanatory resources.

ASSESSMENT

Let's think through that claim. Why might internalism make naturalizing content more difficult? If you disagree, why might it be easier to naturalize as an internalist?

2 Overview: Teleosemantics

Ruth Millikan defends **teleosemantics**. Teleosemantics aims to explain mental content and related notions by appealing to their function or purpose (*telos*). Millikan (1989: 4) describes her project this way:

> A definition of "function" or "*proper* function" is needed that is broad enough to encompass both the functions of language devices and the functions of biological devices. Producing a definition that will do the work required of it efficiently is a task of medium difficulty, but the rewards are many. One reward will be that human purposes, looked at from a naturalist's viewpoint, turn out to correspond to proper functions of a certain kind, so that a connection between human purposes and the natural purposes of body organs and instinctive behaviors will be established that does not rest on mere metaphor.

The general strategy, then, is to give mental content a teleological explanation. Such an explanation concerns what a thing is *for*. If mental content can be explained using the same kind of function-based explanation that is used for "other biological categories," content will have been naturalized.

3 The framework

Millikan's account has *many* moving parts. To understand how she executes her strategy for naturalizing content and where her commitment to externalism comes in, we need to appreciate each part individually and how they work together. Much of today will be focused on these moving parts.

3.1 Reproduction

We need the notion of a **reproduction** to provide a way to explain how two things are similar or alike. For example, we can explain why two hearts are alike by saying that they are reproductions of the same device.

> An individual B is a reproduction of an individual A iff:
>
> (1) B has some determinate properties P_1, P_2, P_3, etc., in common with A.
>
> (2) (1) can be explained by a natural law or laws operative in situ, which satisfy (3).
>
> (3) For each property P_1, P_2, P_3, etc., the laws in situ that explain why B is like A in respect to p are laws that correlate a specifiable range of determinates under a determinable under which p falls, such that whatever determinate characterizes A must also characterize B, *the direction of causality being from A to B*.

Two further notions need be unpacked from these three conditions. First, the **determinable/determinate distinction**. Determinables are property-types that have more specific tokens. For example, *being colored* is the determinable to the determinate *being red*, *being yellow*, and *being green*. Millikan is concerned with determinates because they make for greater similarity.

Second, **in situ laws**. "A special law that can be derived from a universal natural law by adding reference to the actual surrounding conditions, in this case the conditions surrounding the production of B (1989: 20)." For example, the successful workings of a copy machine is governed by such laws. Millikan adds this condition to ensure that A and B are non-accidentally similar.

Reproduction has a few interesting properties for Millikan.

> (i) *Transitivity relative to shared properties*. If A is a reproduction of B with respect to P_1, P_2, P_3, etc., and B is a reproduction of C with respect to P_1, P_2, P_3, etc., then A is a reproduction of C with respect to P_1, P_2, P_3, etc.

(ii) *Multiply caused reproduction.* A device A can be a reproduction of both B and C even though B and C are very dissimilar (e.g. cross necklace designed to resemble a vine of olive leaves).

ASSESSMENT

On its own merits, do we think this is an adequate account of reproduction?

3.2 Reproductive families

FIRST-ORDER REPRODUCTIVELY ESTABLISHED FAMILY

"Any set of entities having the same or similar reproductively established characters derived by repetitive reproductions from the same character of the same model or models form a *first-order reproductively established family* (1989: 23)."

HIGHER-ORDER REPRODUCTIVELY ESTABLISHED FAMILY

"Any set of similar items produced by members of the same reproductively established family, when it is a direct proper function of the family to produce such items and these are all produced in accordance with Normal explanations, form a *higher-order reproductively established family* (1989: 24)."

To illustrate the difference, consider hearts and kidneys. Hearts and kidneys are not members of a first-order family because they are not derived from reproductions of the same model. But they are members of a higher-order reproductively established family becuase of how they are produced.

APPLICATION

What are some other examples of each kind of family membership?

3.3 Ancestor

Next, we need the notion of being an ancestor of a device that is a member of a reproductively established family. Millikan (1989: 27-28) offers these three ways for something to be an ancestor.

ANCESTOR OF A MEMBER OF A REPRODUCTIVELY ESTABLISHED FAMILY

(1) Any member of a (first-order) reproductively established family from which a current member *n* was derived by reproduction or by successive reproductions is an ancester of *m*.

(2) Any temporally earlier member of a (higher-order) reproductively established family which member was produced by an ancestor of the device that produced a present member *m* is an ancestor of *m*.

(3) Any earlier member of a (higher-order) reproductively established family that a present member *m* is similar to in accoradnace with a proper function of a producer that produced both is an ancestor of *m*.

3.4 Proper function

Millikan (1989) will offer her teleological explanation in terms of **proper functions**. "Having a proper function is a matter of having been "designed to" or of being "supposed to" (impersonal) perform a certain function (1989: 17)." More specifically, direct proper functions are those that a device has because they are members of a reproductively established family.

PROPER FUNCTION

Where *m* is a member of a reproductively established family *R* and *R* has the reproductively estalbished or Normal character *C*, *m* has the function *F* as a direct proper function iff:

(1) Certain ancestors of *m* performed *F*.

(2) In part because there existed a direct causal onnection between having the character *C* and performance of the function *F* in the case of these ancestors of *m*, *C* correlated positively with *F* over a certain set of items *S* which include these ancestors and other things not having *C*.

(3) One among the legitimate explanations that can be given of the fact that *m* exists makes reference to the fact that *C* correlated positively with *F* over *S*, either directly causing reproduction of *m* or explaining why *R* was proliferated and hence why *m* exists.

ASSESSMENT

Let's work through these conditions and kick around some examples of functions that meet these conditions.

3.5 Plantinga's objections

3.5.1 Not necessary

Plantinga (1993: 203) asks: "isn't it obvious that a thing need not have ancestors to have a proper function, direct or otherwise?" He gives two examples:

+ **The first telephone**. The first phone would still be capable of functioning properly with respect to transmitting sound. It would still be capable of malfunction. "No doubt it would not have worked properly if dropped off the roof or immersed in a pail of cold water (1993: 203)."
+ **Divine creation**. God could have created Adam and Eve instantaneously. Adam and Eve's hearts, lungs, and the like would have the same proper functions as our organs.

Her theory isn't easy to fix given these counterexamples and others like them. The requirement that proper functions be tied to ancestors appears in all three of the required conditions.

3.5.2 Not sufficient

Plantinga (1993: 203-204) argues that Millikan's account is also insufficient for explaining proper function:

> A Hitler-like madman gains control: as part of his Nietzschian plan to play God, he orders his scientists to induce a mutation into selected non-Aryan victims. Those born with this mutation can't see at all well (their visual field is a uniform shade of light green with little more than a few shadowy shapes projected on it). When they open their eyes and use them, furthermore, the result is constant and severe pain, so severe that it is impossible for them to do anything except barely survive. . . Hitler and his henchmen also begin a systematic and large-scale program of weeding out the non-Aryan nonmutants before they reach reproductive maturity. The mutation spreads; it gets out of control; after a few generations the bulk of the world's population displays it and the number of nonmutants dwindles. **But then consider some nth generation mutant *m*. He is a member of a reproductively established family and has a certain reproductively established character *C* (the relevant part of which involves his visual system). He has ancestors, and among his ancestors, there was a causal connection between that character and the way their visual systems performed, which accounts for the positive correlation of that character with that way of functioning among his ancestors. Condition (3) is also met; one among the legitimate explanations of his existence makes reference to the fact that this character *C* is correlated positively with this way of functioning**: for this way of functioning conferred a survival advantage, in that Hitler, his thugs and their successors were selectively eliminating those who do not display it.

Given such a case, Plantinga claims that it is wrong to say that *m*'s visual system functions properly.

ASSESSMENT

Do thoese counterexamples work? How might we clean up Millikan's account to avoid them?

4 Language

4.1 General characterization

With all of this machinery in hand, we can get back to language. Millikan's big proposal is that language devices can be understood as having proper functions. They meet her three conditions above.

APPLICATION

Let's fill in the gaps ourselves and consider sentence types (*i.e.* declarative, interrogative, imperative) and word types (*i.e.* nouns, verbs, adjectives, adverbs). How are the conditions fulfilled for each?

4.2 Intentionality

The next step is explaining the relationship between proper function and **intentionality**. Millikan (1983: 96) claims that they two are tightly connected:

> In the broadest possible sense of "intentionality," any device with a proper function might be said to display "intentionality." For the traditional earmark of the intentional is the puzzle that what is intentional apparently stands in relation to something else—that which it intends or means or means to do or is meant to do—which something can be described, yet which something mayor may not be. **The general solution to the puzzle**. . . **is to see that intentionality is at root properness or Normalness.** The intentional is "supposed to" stand in a certain relation to something else; for example, it may be its proper function to produce such a something else. Every device with a proper function is meant to do something or other and as such displays intentionality in a very broad sense.

Accepting as much is a big step. Intentionality will have been reduced to proper function. To respond to the obvious objections, she claims that *intentionality* is ambiguous. It can mean different things such that we should not accept a single account to capture all of its meanings.

4.3 Intentional icons

To lay the groundwork for understanding language, Millikan introduces the notion of an **intentional icon**. Sentences are intentional icons, but so are other communcicative devices like the bee's waggle dance.

> *A* is an intentional icon (if and?) only if
>
> (1) *A* is a member of a reproductively eastablished family having direct proper functions.
>
> (2) *A* normally stands midway between two cooperating devices: a producer device and interpreting device, which are designed to fit one another, the presence and cooperation of each being a Normal condition for the proper performance of the other.
>
> (3) *A* normally serves to adapt the cooperating interpreter device to conditions such that proper functions of that device can be performed under those conditions.
>
> (4) *A* has the proper functions of an imperative or indicative.

What are the proper functions of an imperative or indicative? Here's what Millikan (1983: 99) says:

> my claim will be that imperative sentences map in accordance with historically Normal mapping rules onto the configurations or world affairs that they produce when obeyed. And indicative sentences map in accordance with historically Normal mapping rules onto configurations or world affairs whenever they cause true beliefs in hearers in accordance with Normal explanations.

This relies on a notion of **mapping** that Millikan leaves as undefined, intuitive primitive in her theory.

ASSESSMENT

Is her account of intentional icons able to apply to language, the waggle dance, and the like while still being explanatory?

4.4 Sentences

Sentences in language are a unique form of intentional icon because they have a subject-predicate structure. Such structure allows sentences to represent an object as being a certain way. Put differently: sentences enable **representation**. Millikan (1983: 96) talks of sentences thusly:

Representations are intentional icons the mapping values of the referents of elements of which are supposed to be identified by the cooperating interpreter. Bee dances seem to have something in common with sentences, but it is hard to suppose that interpreter bees actually identify- roughly, understand the reference of-the mapping aspects of the dance-maps they observe.

Somse expressions have what Millikan calls **real value**. That happens when the expression is supposed to be mapped to an object in the world. Put in the terminology of proper function, expression have real value when their function is to be mapped to an object in the world.

4.5 Externalism again

So what's this have to do with internalism/externalism? For Millikan, the meaning of an intentional icon is how it is supposed to be mapped to a particular object in the world. That a particular icon is supposed to be mapped in a particular way depends on the icon's proper function(s). For something to be a proper function, it *has* to depend on external factors such as what ancestors had what properties.

Externalism, therefore, falls out of Millikan's project of naturalizing content by analyzing lingusitic devices according to their purpose or *telos*.

ASSESSMENT

Is there a way to render teleosemantics compatible with internalism?