

“Intentionality”
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1	Aboutness	1
2	Intentionality, content, and reference	2
3	Intentionality, intensionality, and intentions	3
4	Intentionality and mentality	4
5	Original and derived intentionality	6
6	The reduction of original intentionality	7

1 Aboutness

The closest thing to an synonym for ‘intentionality’ is ‘aboutness’; something exhibits intentionality (to a first approximation) if and only if it is about something. The relevant sense of ‘about’ is best elucidated by example: the name ‘Saul Kripke’ is about Saul Kripke; my belief that the weather in South Bend is dreary is about the city of South Bend, Indiana; the black lines and curving blue stripe on the map in my hand are about the streets of South Bend and the St. Joseph River; the position of the needle gas gauge in my car is about the amount of gasoline in the tank of my car. While it is difficult to find an uncontroversial and illuminating paraphrase of the relevant sense of ‘about’, it’s hard to deny that there is some reasonably clear sense of aboutness common to these examples.

This characterization of intentionality as aboutness is only true to a first approximation because something can exhibit intentionality without being about anything, if it purports to be about something. ‘Zeus’ is not about, does not represent, anything; this name, unlike ‘Saul Kripke’, does not have a worldly correlate. It would nonetheless be misleading to say that ‘Saul Kripke’, but not ‘Zeus’, is an instance of intentionality. ‘Zeus’ counts as an example of intentionality by virtue of the fact that it (in a difficult to explain sense) aims to be about something, even if it does not succeed.

2 Intentionality, content, and reference

The list of terms which one finds used in discussions of intentionality is bewildering. Glossing over a wealth of distinctions, these terms are divisible into two broad categories. On the one hand, we have ‘reference’, ‘denotation’, and ‘extension’; on the other hand, we have ‘content’, ‘meaning’, ‘sense’ ‘connotation’, and ‘intension.’ The relationship between these categories of terms is best illustrated via the intentionality of linguistic expressions.

Just as names are about, in the relevant sense, the objects for which they stand, so, one might think, predicates are about the things that they are true of. ‘Green’ is about the green things, ‘happy’ about the happy things, and so on. The things that words are about, in this sense, are their references (denotations, extensions). But, plausibly, a theory of reference for a language would not be a full account of the content (meaning, sense) of expressions of the language. To adapt an example from Quine,¹ the sentences ‘Dolly is a renate’ and ‘Dolly is a cordate’ may be alike with respect to the reference of the expressions which compose them (because the set of cordates is identical to the set of renates) even though, intuitively, the two sentences say different things about Dolly. So it seems that two expressions can have the same reference while differing in content. But many have thought that, as Frege suggested, the converse does not hold: two expressions can’t have the same content without also having the same reference.² This combination of views — that the content of an expression is something over and above its reference, and that the content of an expression determines its reference — is very widely accepted.³

These views about the relationship between content and reference structures much contemporary work on intentionality for, if content determines reference, it is natural to think that content explains reference: intentional phenomena come to be about things by virtue of their possessing a content. This way of thinking about intentionality has several virtues. One is that it seems to offer an explanation of the example of ‘Zeus’ mentioned above; if aboutness is typically explained by possession of a content, then perhaps the sense in which ‘Zeus’ aims to be about something is that it, like expressions which are genuinely about something, has a content. It’s just that in the case of ‘Zeus’, this content fails to determine a reference.

Virtually nothing more can be said about content, reference, and the relationship between the two without entering into matters about which there is not even rough agreement. Theorists differ about what sorts of things contents are, about whether there are any expressions for which content and reference coincide, and about whether there are any kinds of expressions which cannot

¹See Quine, ‘Two Dogmas of Empiricism’.

²Frege, ‘On Sense and Reference’.

³Though not universally; defenders of a Chomskyan internalist view of meaning often reject the idea that expressions have reference, let alone a reference which is determined by a content. For a very clear discussion, see Pietroski, ‘The Character of Natural Language Semantics’. Another source of discontent with the above comes from skepticism about the very idea of content, or meaning. For two very different discussions of this kind of skepticism, see Quine, ‘Two Dogmas of Empiricism’ and Kripke, *Wittgenstein on Rules and Private Language*.

possess a content without possessing a reference.⁴

3 Intentionality, intensionality, and intentions

It is worth mentioning at this point two persistent, though purely terminological, sources of confusion about intentionality: the distinctions between intentionality and intensionality on the one hand, and intentionality and intentions on the other.

Intensionality is a property, in the first instance, of sentence contexts. Intuitively, a sentence context is a ‘location’ in a sentence occupied by a word or phrase. Given any context in a sentence, we can then ask: can we, by replacing one expression or phrase in that context with another which has the same reference, change the truth-value of the sentences as a whole? If so, then the context is said to be ‘intensional’.

So far, the connection between intentionality and intensionality seems to be merely orthographic. But it has been claimed that the latter is a criterion for the former: that descriptions of intentional phenomena will always include an intensional context.⁵ For many examples, this seems plausible. Beliefs are intentional, and sentences ascribing beliefs typically do involve intensional contexts. For example,

John believes that the world’s most famous sheep is famous.

may be true while

John believes that Dolly the sheep is famous.

is false, even if ‘the world’s most famous sheep’ and ‘Dolly the sheep’ have the same reference. But the criterion seems to fare less well when the intentional phenomena in question are not propositional attitudes. For example, the sentence

The thick blue line on my map of South Bend represents the St. Joseph River.

appears to ascribe the right sort of ‘aboutness’ to qualify as a sentence about intentionality, but the sentence does not seem to contain any intensional contexts. And many sentences which do contain intensional contexts don’t seem to be descriptions of intentional phenomena. For example,

Mammals have a greater chance of heart failure than flatworms because they are cordates.

and

⁴Canonical works on these topics include Frege, ‘On Sense and Reference’, Russell, ‘On Denoting’, Frege, ‘Thought’, Carnap, *Meaning and Necessity*, Kripke, *Naming and Necessity*, and Kaplan, ‘Demonstratives’.

⁵See Chapter 11 of Chisholm, *Perceiving: A Philosophical Study*.

Mammals have a greater chance of heart failure than flatworms because they are renates.

seem to differ in truth-value, even though ‘cordates’ and ‘renates’ have the same reference and the sentence does not ascribe intentionality to anything. So intentionality and intensionality are quite different things, and it seems unlikely that either can provide a criterion for the other.⁶

A second potential source of confusion is the similarity of ‘intention’ and ‘intentionality.’ ‘Intention’, like ‘belief’ and ‘desire’ is the name of a type of mental state. Like beliefs and desires, intentions exhibit intentionality. Sometimes, as in ‘I intend to finish this encyclopedia article by the deadline’, the intention is about a future action of mine; in other cases, as in ‘I intend that peace and harmony reign’, it is about something else. But in either sort of case, intentions are — just like beliefs and judgements — examples of intentionality, and nothing more. Intentions are no more essential to intentionality than are beliefs, judgements, or other mental states.⁷

4 Intentionality and mentality

Though ‘intentionality’ is derived from ‘intentio’, a technical term which had wide use in medieval philosophy, and ‘intentio’ is itself a translation of technical terms from pre-medieval Arabic philosophy, modern usage of the term is standardly traced to Franz Brentano’s 1874 *Psychology from an Empirical Standpoint*.⁸ Brentano is standardly taken to have made two basic claims about intentionality, each of which has been extremely influential. The first is that intentionality is internally related to mentality:

“Every mental phenomenon is characterized by what the Scholastics of the Middle Ages called the intentional . . . inexistence of an

⁶As if ‘intentionality’ and ‘intensionality’ were not bad enough, there are a number of confusions just having to do with ‘intensional’ which further complicate matters. On at least one well-established use of the term in semantics, the intension of an expression is the set of its extensions in all possible worlds (or a function from possible worlds to extensions). Given that an extensional context is one in which terms with the same extension can be substituted *salve veritate*, one would expect an intensional context to be one in which terms with the same intension can be substituted *salve veritate*. But this is not how ‘intensional context’ is normally used. For one thing, ‘extensional context’ and ‘intensional context’ are taken to be exclusive — even though the set of contexts in which co-extensional terms are substitutable is not disjoint from, but is rather a proper subset of, the set of contexts in which co-intensional terms may be substituted. Secondly, and more importantly, some contexts are called ‘intensional’ even though terms with the same intension *cannot* be substituted there. Complements of propositional attitude ascriptions are the paradigm of intensional contexts, even though substitution of sentences with the same intension — i.e., the same truth value in all possible worlds — can change the truth value of the ascription.

⁷The waters are further muddied by the way that translators use ‘intend’ when translating the works of Brentano, Husserl, and other phenomenologists. When (a translation of) Husserl says ‘an experience intends such-and-such’ this means not (absurdly) that the experience has formed an intention to do such-and-such, but that the experience is about, or represents, such-and-such. See, e.g., Husserl, *Logical Investigations*, §V.13.

⁸For a partial history of the concept of intentionality, see the essays in Perler, *Ancient and Medieval Theories of Intentionality*.

object, and what we might call ... direction toward an object Every mental phenomenon includes something as an object within itself, although they do not all do so in the same way. In presentation something is presented, in judgement something is affirmed or denied, in love loved, in hate hated, in desire desired, and so on.

This intentional in-existence is characteristic exclusively of mental phenomena. No physical phenomenon exhibits anything like it. We can, therefore, define mental phenomena by saying that they are those phenomena which contain an object intentionally within themselves.”⁹

It is important to see that this claim about intentionality is just that: a substantive claim. If we think of intentionality as aboutness, it is simply a mistake to think that intentionality and mentality are trivially or stipulatively linked ‘by definition.’

But to say that Brentano’s thesis about the connection between intentionality and mentality is a substantive one rather than a triviality is not, of course, to say whether it is true or false. We can think of Brentano’s thesis as having two components:

- Intentionality is necessary for mentality; all mental states exhibit intentionality.
- Intentionality is sufficient for mentality; everything which exhibits intentionality is a mental state.

The claim of necessity is uncontroversial when we are thinking of propositional attitudes like believing, supposing, and judging — mental states which we naturally report using sentences of the form ‘*a* *v*’s that *s*’, where ‘*s*’ is replaceable by a sentence. It is more controversial, but still plausible, when we think of perceptual states. The sense in which my visual experience is currently *of*, or *about*, a computer screen is recognizably the same as the sense in which a name is a name *of* its bearer.

On the face of it, though, bodily sensations like itches and pains seem to be counterexamples to Brentano’s claim that intentionality is necessary for mentality. My sensation of throbbing pain is clearly a mental state — but can it be said to represent, or be about, anything at all? Many have thought not, and have seen the attempt to find intentionality in sensations as an ad hoc attempt to find something common to mental phenomena.¹⁰

But this negative verdict can be challenged, and has been in recent philosophy of mind. For one thing, there is no reliable inference from the fact that the most salient aspect of pains and other bodily sensations is their phenomenal feel to the conclusion that they can’t be of or about anything. Perceptual experiences, after all, are associated with distinctive phenomenal feels, yet do

⁹Brentano, *Psychology From an Empirical Standpoint*, §II.i.5.

¹⁰See, for example, Chapter 1 of Rorty, *Philosophy and the Mirror of Nature*.

plausibly exhibit intentionality. Second, pains are felt as located; and, given this, it is not implausible to think of them as *about* the part of the body where they are felt to be.¹¹

On the face of it, the other half of Brentano's thesis that intentionality defines the mental seems to be less well off. How can one claim that intentionality is sufficient for mentality when things which are clearly not mental states — like words, parts of maps, and gas gauges — clearly exhibit intentionality?

5 Original and derived intentionality

The best answer to this question invokes a distinction between *original* and *derived* intentionality. We began by noting the diversity of things which exhibit intentionality: mental states, linguistic expressions, maps, gas gauges. But it is plausible to think that at least some of these intentional phenomena acquire this status via a relation to some other more fundamental intentional phenomenon. If this is correct, we can recast the second half of Brentano's thesis as the claim that only mental phenomena have original intentionality: intentionality not explicable in terms of other intentional phenomena.

This sort of defense of Brentano carries with it a commitment to the research program of explaining the intentionality of language, maps, and gas gauges in terms of the intentionality of the mental. This research program has considerable promise, and has received sophisticated development over the last few decades, with most of the attention focused on explanations of linguistic meaning in terms of mental content.

One well-developed attempt to provide such an explanation begins with the thought that linguistic expressions mean what they do because of what speakers intend to convey by using them. On this view,¹² what a speaker means by uttering an expression on an occasion (speaker-meaning) is a function of the beliefs that speaker intends to bring about in her audience via their recognition of that communicative intention; and, further, what an expression means in a community is a function of what speakers mean, or would mean, by using the expression on various occasions. By this two part reduction (of expression-meaning to speaker-meaning, and speaker-meaning to communicative intentions), the intentionality of language is then taken to be shown to be explicable in terms of the intentionality of intentions. Critics of this approach have focused on its inability to explain uses of language in thought and apparently normal examples of communication in which speakers lack the requisite communicative intentions.¹³ But, despite the problems faced by specific versions of this reductive program,

¹¹Perhaps they represent that part of the body as damaged. For a defense of the intentionality of sensation, see Chapter 4 of Tye, *Ten Problems of Consciousness: A Representational Theory of the Phenomenal Mind* and §7 of Byrne, 'Intentionalism Defended'. For the contrary view, see Chapter 1 of Searle, *Intentionality*.

¹²Defended in, among other places, Grice, 'Meaning', Grice, 'Utterer's Meaning and Intentions', Schiffer, *Meaning*, and Schiffer, 'Notre Dame Journal of Formal Logic 23 [1982]'.
¹³See Chomsky, *Reflections on Language*, Schiffer, *Remnants of Meaning*.

there is widespread — though far from universal¹⁴ — agreement that there is some way of explaining the intentionality of language via the intentionality of mental states.¹⁵

6 The reduction of original intentionality

Supposing that there is a genuine distinction between original and derived intentionality, there is a further question about whether original intentionality can itself be explained. The second thesis about intentionality often associated with Brentano is that it can't be: original intentionality is not only definitive of mentality, but also inexplicable in non-intentional terms.¹⁶

The dominant view in recent years has opposed Brentano on this question. Jerry Fodor captures the standard view well:

“I suppose that sooner or later the physicists will complete the catalogue they've been compiling of the ultimate and irreducible properties of things. When they do, the likes of *spin*, *charm*, and *charge* will perhaps appear on their list. But *aboutness* surely won't; intentionality simply doesn't go that deep . . . If aboutness is real, it must really be something else.”¹⁷

In part because most recent theorists have adopted the view, sketched above, that original intentionality is found at the level of thought, most recent theorists have approached the task of explaining original intentionality by constructing theories of mental content. The standard method of theory construction takes as given the following broad thesis: having a mental state of a certain type with a given content is a matter of being in an internal state which itself has properties which make it a mental state of the relevant type and with the relevant content. This view is sometimes called ‘the representational theory of the mind’ — though this label is sometimes used for the conjunction of the present view with the language of thought hypothesis (about which more later) — and other times is called ‘functionalism’ — though this label is sometimes used to describe the conjunction of the present view with the thesis that the content determining properties of internal states are their functional roles.

The natural next questions are: what properties of internal states make them mental states of a certain type, and with a certain content? And which internal states are these properties of? These questions are largely, though not completely, orthogonal. Though most attention in the literature has focused on

¹⁴For different views of the source of the intentionality of language, see Laurence, ‘A Chomskian Alternative to Convention-Based Semantics’ and Brandom, *Making It Explicit*.

¹⁵For example, some have thought that the intentionality of language is best explained in terms of the beliefs, rather than the intentions, of language users. See Lewis, ‘Languages and Language’.

¹⁶For skepticism about this interpretation of Brentano, see Moran, ‘Brentano's Thesis’ and the discussion in Byrne, ‘Intentionality’.

¹⁷Fodor, *Psychosemantics*, p. 97.

the first of these questions, it is worth saying a word about two very different sorts of answers to the second.

One way to bring out this difference is via the notion of a propositional attitude state. Let a propositional attitude state be an internal state of an agent which underwrites one of the agent's mental states, in the sense that properties of that internal state (1) make it a mental state of a certain type — for example, a belief or a judgement — and (2) give it a specific content — for example, that grass is green, or that baseball is America's pastime. It is a presupposition of theories of content that, so defined, there are such things as propositional attitude states. One immediate question is then whether the properties which do jobs (1) and (2) are distinct: Is it the case that there is some property that all belief states have in common, but which judgement states, or desire states, do not? And is it the case that there is some property that all propositional attitude states which have as their content that grass is green have in common, but which states which have as their content that shrubs are green or grass is pretty, do not?

Suppose that we answer these questions in the affirmative. Then, rather than asking what makes a certain internal state the belief that grass is green, we can factor this question into two: What makes that state a belief? And what gives it the content that grass is green? It is in answering this second question that we arrive at a crucial choice point. The propositional attitude state in question will presumably be some complex physical state of the agent in question. Given this, we can ask: is the content of the propositional attitude state derived from the contents of its parts — so that, in the above case, the propositional attitude state would have one part which represents grass, and another which represents the color green — or are the fundamental content-conferring properties of the propositional attitude state as whole? To take the former option is, more or less, to endorse the language of thought hypothesis, and to take the latter option is to reject it. There are contemporary theorists on both sides of this debate.¹⁸

Whatever one's view on the language of thought hypothesis, the principal challenge in constructing a theory of content is to specify the properties which confer contents on internal representations. Here the proliferation of theories is such that it is hardly possible to do better than the following list of candidate completions of 'an internal representation x has the content p if and only if ...':

- x is actually caused by p 's being the case / p 's being the case would, under epistemically ideal conditions, cause that internal state (Stalnaker, *Inquiry*) / x covaries with p 's being the case during the 'learning period' when the state is acquiring a content (Dretske, *Knowledge and the Flow of Information*).
- It is the biological function of x to be present when p is the case (Millikan, 'Biosemantics').

¹⁸For defense of the language of thought hypothesis, see Fodor, *The Language of Thought*, Rey, 'A Not 'Merely Empirical' Argument for a Language of Thought'; for opposition, see Stalnaker, 'Mental Content and Linguistic Form', Blackburn, *Spreading the Word*.

- x has nomological connections of specified kinds with property p (Fodor, ‘A Theory of Content, II: The Theory’).
- There is an isomorphism between the system comprised of x and the rest of the agent’s internal representations and a system containing p which maps x onto p (Cummins, *Meaning and Mental Representation*).
- A (specified) theory maps x ’s functional role — its causal connections to perceptual input, behavioral output, and other internal representations — onto p (Block, ‘Advertisement for a Semantics for Psychology’, Harman, ‘Wide Functionalism’, Harman, ‘(Nonsolipsistic) Conceptual Role Semantics’).

The discussion so far leaves open a meta-question about these theories of original intentionality: supposing that none of the above versions of the representational theory of the mind is correct, and that no alternatives to the representational theory fare any better, what attitude should we take toward the claims about the intentionality of mental states to which we unhesitatingly subscribe in daily life? This too is a question on which recent theorists have differed. Some who have rejected the analysis of original intentionality in non-intentional terms have taken this to show that alleged intentional facts should be put in the same category as alleged facts about phlogiston, witches, and other posits of false theories; others have taken the failure of reductions of original intentionality to show only that intentionality is an unanalyzable feature of the world, though no less real for that.¹⁹

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¹⁹For examples of the first attitude, see Quine, *Word and Object*, Churchland, ‘Eliminative Materialism and the Propositional Attitudes’; for examples of the second, see Chisholm, *Perceiving: A Philosophical Study*, Searle, *Intentionality*.

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