Varieties of Representation

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Abstract
The concept of representation has a vast and highly diverse extension. In this paper I distinguish four kinds of representation, viz. proxy, make-believe, and intentional representation, as well as representation *simpliciter*. The bulk of the paper is devoted to intentional representation. I argue that the relation of intentional representation is non-reflexive, non-symmetrical, and non-transitive. I articulate a fundamental distinction between two aspects of the content of intentional representations, viz. subject and predicative content. Finally, I qualify and defend the distinction between iconic and symbolic intentional representation. Along the way, I also argue that psychological intentions play a constitutive role in representation.

Few concepts are as fundamental to our conceptual scheme as the concept of representation. Consider, for instance, the vast range of things that are regularly, if sometimes controversially, taken to be, to involve, or to have instances that are representations: paintings, drawings, prints, photographs, and sculptures; theatrical, operatic, and dance performances; literary works of fiction and non-fiction; film, video, and TV; programmatic music and sound effects; synthetically produced tastes and smells; languages and systems of notation and transcription; graphs, maps, and scale models; gauges; toys, props, and games of make-believe; natural signs (e.g. smoke); information signs (e.g. road signs); bodily gestures; samples; concepts and propositions; mental states (e.g. beliefs, desires); lawyers, politicians, and diplomats; and so on and so, endlessly, forth.

In calling all of these things (rightly or wrongly) 'representations' we mean, at a minimum, that they are or involve things that *stand for* other things – e.g. a painting stands for its subject, a referring term stands for an entity in the world, a toy truck stands for a real truck, a reading on a gauge stands for the value of the quantity measured, a lawyer stands for her client in a court of law, and so on. The notion of 'standing for' captures a defining feature of representations, in that all and only representations stand for other things. But the notion is minimal, and analysing representation in terms of it is of limited value since any analysis of 'standing for' in turn fairly quickly returns us to the notion of representation. My aim in this paper is to move beyond the minimal notion of representation, and to provide an account – a typology, if you will – of what I take to be

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the main varieties of representation. Undertaking this task is of intrinsic value in view of the centrality of the concept of representation in our conceptual scheme. It is also of instrumental value, for getting clear about the main kinds of representation gives us the tools needed to assess a range of philosophical claims which make heavy – but often uncritical – use of the concept of representation.

In view of its aim, this paper is rather general in tone, though what is sacrificed in detail is hopefully made up for in comprehensiveness. Section 1 distinguishes eleven senses of the term 'representation' and extracts four concepts of representation from them, namely intentional, proxy, and make-believe representation, as well as representation *simpliciter*. Section 2 argues that representation requires an intentional stance towards it, for whether one thing represents a second thing constitutively depends on whether the former is *taken* to represent the latter. Section 3 sketches the notion of proxy representation, which includes representatives and exemplars of various kinds. Section 4 turns to make-believe representation, and argues that role-playing should be understood in terms of it. Most of the representation around us is intentional, and the rest of the paper is devoted to it. Section 5 argues that, contrary to a philosophical consensus, the relation of intentional representation is non-reflexive, non-symmetrical, and non-transitive. Section 6 articulates a fundamental distinction between two aspects of the content of intentional representations, viz. subject and predicative content. Section 7 qualifies and defends the distinction between iconic and symbolic intentional representation. Finally, section 8 summarises in tabular form the typology of representation proposed and illustrates the possible combinations among types of representation.[1]

[1] This paper concentrates on human representation, but I do not thereby mean to suggest that non-human animals are incapable of representing things in their environment. Acculturated primates are capable of symbolic representation and animal social play involves various kinds of play signals. For details, see respectively S. Savage-Rumbaugh and R. Lewin, *Kanzi: The Ape at the Brink of the Human Mind* (New York: John Wiley & Sons, Inc., 1994) and M. Beckoff, 'Action in Cognitive Ethology', in T. O'Connor and C. Sandis (eds), *A Companion to the Philosophy of Action* (Oxford: Wiley-Blackwell, 2010), 393–400. The kinds of representation I discuss in this paper carry over, with appropriate qualifications, to non-human animal representation.

1. Senses of 'Representation'

The *Oxford English Dictionary* lists nineteen senses of the word 'representation'. Abstracting from the specifics of certain technical uses and recasting all in verb form, the list boils down to about nine:[2]

1. x represents $y =_{\text{def}} x$ stands for y
2. x represents $y =_{\text{def}} x$ refers to/denotes y
3. x represents $y =_{\text{def}} x$ stands in for y
4. x represents $y =_{\text{def}} x$ acts on behalf of y
5. x represents $y =_{\text{def}} x$ plays the role of y
6. x represents $y =_{\text{def}} x$ portrays or depicts y
7. x represents $y =_{\text{def}} x$ is a linguistic account of y
8. x represents $y =_{\text{def}} x$ is make-believe identical with y
9. x represents $y =_{\text{def}} x$ presents y to the mind or imagination

To these we can add two further senses, which though controversial are sometimes used in philosophy and the sciences, namely:

10. x represents $y =_{\text{def}} x$ is naturally correlated with y
11. x represents $y =_{\text{def}} x$ carries information about y

(1)–(11) are a very mixed bag, of course. Some are not mutually exclusive. For example, senses (2)–(11) entail (1), since (1) is the minimal notion of representation discussed above. Similarly, (7) entails (2), since if x is a linguistic account of y (e.g. a linguistic description of the process of combustion), then presumably x (or parts of x) refer to y (i.e. the process of combustion). Secondly, (1)–(11) are not jointly exhaustive. For example, there is no provision in the list for aural representations, let alone for the possibility of tactile, gustatory, and olfactory ones. Thirdly, some of (1)–(11), for example (10) and (11), at best specify a necessary condition for a particular kind of representation, but are not themselves sufficient for representation.

All this said, (1)–(11) are comprehensive enough in the sense that, suitably modified, all the kinds of representation with which we are familiar, including those listed at the start of this paper, can be traced back to them. I propose to extract four fairly abstract concepts of representation from (1)–(11), namely:

Representation simpliciter
x represents $y =_{\text{def}} x$ stands for y

[2] In this paper, I shall sometimes use the term 'representation' to refer to the things that represent (e.g. pictures) and sometimes to refer to the relation in which those things stand to what they represent. Nothing hangs on this, and context always makes clear which I intend.

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Intentional representation
x represents $y =_{\text{def}} x$ has y as its content

Proxy representation
x represents $y =_{\text{def}} x$ is (a) representative of y

Make-believe representation
x represents $y =_{\text{def}} x$ is make-believe identical with y

Representation *simpliciter* is the minimal notion of representation already discussed. It subsumes all and only representations, and hence subsumes intentional, proxy, and make-believe representations. The burden of this paper is to make a case for the latter three concepts of representation. I do not claim that they are mutually exclusive or jointly exhaustive. Still, they differ from each other in important ways so as to merit separate treatment, and they are sufficiently general so as to subsume most familiar kinds of representation.

2. The Intentional Stance on Representation

In a famous paper, Putnam asks us to imagine the following scenario:

> An ant is crawling on a patch of sand. As it crawls, it traces a line in the sand. By pure chance the line that it traces curves and recrosses itself in such a way that it ends up looking like a recognizable caricature of Winston Churchill. Has the ant traced a picture of Winston Churchill, a picture that *depicts* Churchill?[3]

No, says Putnam, for the ant has not (indeed cannot have) *intended* to depict Churchill. The ant has 'only' produced a *likeness* of the statesman. I think Putnam is right about this, though in my view he places undue weight on the *ant's* intentions or lack of. For imagine that I am walking along the beach and come across the ant as it is tracing the line in question. *I* can intend the line to be a representation of Churchill even if the ant itself cannot. Suppose I set a rope around its perimeter, place a sign with the words 'Portrait of Churchill, or We Shall Fight in the Beaches', and charge a fee to those who wish to see it. It is plausible to think that I have turned the line in the sand into a representation of Churchill. I have done so by intending that it be so interpreted, and in furtherance of this intention I have surrounded it with enough cues to guide the viewer.

[3] H. Putnam, 'Brains in Vats', in his *Reason, Truth and History* (Cambridge: Cambridge University Press, 1981), 1.

Putnam's thought-experiment suggests that representation constitutively depends on psychological intention, for whether one thing represents a second thing constitutively depends on whether a subject *takes the first to represent the second*.[4] The ant has not (cannot have) produced a representation of Churchill, for it cannot *take* the line it has traced in the sand to be a representation of Churchill. I, on the other hand, can turn that line into a representation of Churchill precisely because I can take that line to represent him.

Does all representation constitutively depend on psychological intention in this way? Mental states construed as mental representations do not. First, much mental-state formation is spontaneous. I wake up and see the light filtering through the blinds of my bedroom and form the belief that I am late for work. Does my believing that I am late for work require a prior or concurrent intention that the mental state I am in represent my being late for work? Hardly. What goes for belief formation also goes for desire formation, regret formation, and most other mental-state formation.

Secondly, psychological intention is *itself* a mental state. So, if my believing that I am late for work requires a prior or concurrent intention of taking my believing that I am late for work to represent that I am late for work, then the intention so to take my believing that I am late for work in turn requires a prior or concurrent second-order intention that I intend the first-order intention that my believing that I am late for work represent that I am late for work, which intention in turn requires a third-order intention that I intend the second-order intention that I intend the first-order intention that my believing that I am late for work represent that I am late for work, and so on *ad infinitum*.[5] The upshot is that my believing that I am late for work cannot constitutively depend on psychological intentions.

Whether beliefs and other mental states *are* representations is an important question that I do not intend to tackle here. For our purposes, it suffices to note that if they are, then not all representations constitutively depend on psychological intention. We

[4] Cf. H.-J. Glock, 'What are Concepts?', *Conceptus* **96** (2010), 17.

[5] In more perspicuous form: let M be my mental state of believing that I am late for work, and I_1 my intention that M represent that I am late for work. Then for M to be a representation, I must have the prior or concurrent intention I_1. But since I_1 is itself a mental state, having I_1 requires my having the prior or concurrent intention I_2 that I intend I_1, which in turn requires my having the prior or concurrent intention I_3 that I intend I_2, and so on *ad infinitum*.

can accommodate this point by drawing a distinction between intrinsic and extrinsic representations (leaving open the question whether the distinction is ultimately real). *Intrinsic* representation is a two-place relation that holds between what represents and what is represented. *Extrinsic* representation, on the other hand, is a three-place relation that holds between what represents, what is represented, and a set of relevant psychological intentions. Examples of extrinsic representation include representation in the arts, medical diagnostic imaging, props, and lawyers. For the rest of this paper, the term 'representation' shall mean extrinsic representation.

To return to the main line of argument, then, all (extrinsic) representation requires an intentional stance towards it. Depending on the kind of representation, the stance may be that of an individual or of a group of individuals or a whole society. In the latter case, such 'shared intentionality' is typically embodied in conventions, practices, and institutions, which then operate with various degrees of autonomy from individual or explicit acts of taking one thing to represent another thing.

Much representation around us is indeed a matter of shared intentionality. Thus, my taking you to be my legal representative in a court of law (i.e. my appointing you as my legal representative) will only make you my legal representative if you are a lawyer or are otherwise appropriately related to the social institution of the law (see section 3 below). Similarly, an actor playing Hamlet in the theatre represents that character regardless of whether individual audience members take him to do so. The operative conventions – such things as that people onstage represent characters and call each other by names other than their own – establish the representational link between actor and character all by themselves. Indeed, the presence of such conventions makes room for the possibility of *error*, as personal beliefs or attitudes that clash with them are thereby mistaken or otherwise inappropriate. Thus, you are mistaken if you think that the actor playing Hamlet is in fact playing some other character (e.g. Horatio), or if you think that he is not really an actor but *is* Hamlet (see section 4 below).

Whether dependent on individual or shared intentionality, much representation is highly *promiscuous* in that, given the right context, pretty much anything can be taken to represent anything else, and taking something to be a representation typically makes it so. Thus, a theatre director may use a chair to represent a missing actor while blocking a scene in rehearsal, and her doing so suffices to turn the chair into a representation of the missing actor despite the obvious differences between chair and actor. Similarly, numbers are used in

national registries of persons to uniquely identify and hence represent citizens, and they do so – despite the wild differences between numbers and human beings – because of a shared intention, embodied in an office of government, that they should do so. The promiscuity of representation is evident in all spheres of life, including much contemporary art, games, and role-playing generally.

3. Proxy Representation

The first kind of representation I propose to distinguish is fairly straightforward. The relation of proxy representation holds whenever one thing is taken to be (a) representative of – to go proxy for – a second thing in a given context. There are many different kinds of proxies or representatives, but here I will confine myself to two main types.

The first type includes lawyers, legal guardians, politicians, priests, diplomats, spokespersons, envoys, and messengers. Each of these is formally appointed (i.e. granted the authority) to speak for, or conduct business on behalf of, the represented party, viz. clients, wards, constituents, congregation or church, country, institution or corporation, and so on. Doing so typically involves explaining, promoting, and defending the interests of the represented party. Representatives of this kind often elicit similar kinds of behaviour from those interacting with them as would be elicited by those they represent. For example, if unable to attend some public event Queen Elizabeth sends a representative in her place, those at the event typically extend (some of) the courtesies they would show toward the monarch to the representative.

A different kind of proxy representation is involved when, for example, an athlete takes part in an international competition, such as the Commonwealth Games. The athlete represents her country at the event by competing in it, and she is selected to do so by being a fine *exemplar* of her country's abilities in the discipline concerned (in theory, at any rate). Not only people can be representatives in this sense. At an international wine competition, for example, the representatives are primarily the wines, not their makers.

Exemplars need not be exemplary in order to be representative. Some exemplars are representative of a group simply by virtue of belonging to it, e.g. any human being is representative of the species *homo sapiens*. Other exemplars are representative of a group by being typical members of it, the way, for example, a student with average grades might be representative of her class. Yet other

exemplars are representative of a group by being prototypical of its members, i.e. by possessing a large number of features distributed among individual members of the group. Prototypes need not actually exist. For an example, consider the bird one is likely to find depicted in an encyclopaedic entry on birds. It very probably does not correspond to any particular species of bird. It is, rather, a prototypical bird, and its didactic value lies precisely in the fact that it possesses a large number of features that are distributed among individual birds, features which are nevertheless not all possessed by any one, actually existing bird or species of bird.

4. Make-Believe Representation

Proxy representations are typically such that what represents and what is represented are not commonly or easily conflated. The second kind of representation I propose to distinguish differs from proxy representations in that its production and consumption trade on the illusion that what represents and what is represented *are* the same.[6] The kind of representation I have in mind is characteristic of role-playing. Take an actor playing the role of Hamlet in a production of Shakespeare's play. The actor, we say, represents Hamlet. Plainly, it would be wrong to say that the actor is a representative of Hamlet (proxy representation). And to say that he stands for Hamlet (representation *simpliciter*) is true but does not capture what is distinctive about dramatic representation.

What is distinctive about the actor's representation of Hamlet is that, within the context of the theatrical performance, the actor is taken to be *make-believe identical* with Hamlet. Indeed, we often praise an actor's performance by saying that he completely identified himself with his character. Actors and audience collude to create and sustain the dramatic illusion. The actor playing Hamlet pretends to be Hamlet; the audience and fellow actors acquiesce in the pretence, since they expect the actor to do so; and each party knows that the other knows that the whole thing is an elaborate game of make-believe. What holds for actors, also holds for sets, props, lighting, and any other representational device or mechanism that helps to create and sustain the dramatic illusion. Thus, a backdrop with a castle painted on it is make-believe identical with Elsinore Castle; a

[6] In calling it an illusion I do not intend to imply that those who partake in it are thereby subject to mistaken beliefs (see below).

fake, plastic skull is make-believe identical with 'poor Yorick'; and so on.

The limiting case of dramatic representation as make-believe identity is the case of dramatic *self*-representation, where an actor plays herself or a prop stands for itself on stage or in film. Here actor and character, or prop and represented object, really are identical. But even here it is reasonable to suppose that there will be other features of the performance that are only make-believe identical with what they represent. Other actors will represent characters other than themselves, or other props will be mere representations, and so on. Where every feature of a dramatic representation is literally identical with what it represents, we can genuinely wonder whether we still have a representation and not the thing itself.

Admittedly, this conception of dramatic representation as make-believe identity best fits mainstream cinema and certain kinds of theatre (e.g. Elizabethan theatre, nineteenth-century realism). Some theatre practices in the twentieth and twenty-first centuries challenge this conception, sometimes explicitly. Brecht, for example, used alienation effects (*Verfremdungseffekte*), such as the use of deadpan delivery, songs, narrators, masks, placards, and projections of images and text to shatter the illusion of identity, which in his view encouraged a kind of audience passivity conducive to class exploitation.[7] Such effects of course presuppose that dramatic representation is standardly a matter of actors (and audience) identifying themselves with characters on stage. For they can only shatter the illusion of identity, if the illusion is there to be shattered in the first place. Still, what are we to make of dramatic representation in performances that employ alienation effects? In Brecht's plays – at least in my experience of them – the illusion is only intermittently shattered, i.e. it is shattered only to be restored only to be shattered only to be restored, and so on. At the end of *Mother Courage and Her Children*, for example, one cannot but *feel for* Kattrin as she beats her drum atop a roof, moments later to be shot dead by the Second Soldier. Put differently, the alienation effects do not so much destroy the dramatic illusion as *remind* the audience that it is an illusion (they make it explicit). But those reminders are compatible with experiencing the illusion, just as our experience of *trompe l'oeil* paintings is compatible with our concurrent awareness that what they depict is illusory.

[7] B. Brecht, 'Organum for the Theatre', reprinted in J. Willetts (ed. and trans.), *Brecht on Theatre* (London: Methuen, 1964), 179–208.

Other contemporary theatrical practices, such as post-dramatic theatre, dispense with characters more or less completely in favour of fragmentary explorations, through acting, of the material and conceptual conditions that make theatrical representation possible (e.g. willing suspension of disbelief, the fourth wall, the distinction between actors and audience, the 'elitist' character of the dramatic arts).[8] Dramatic performances in this vein, however, pose no challenge for the view I am defending, as I am only making a claim about the kind of representation involved in dramatic role-playing, i.e. the kind of representation where an actor represents a character on stage or in film. Not every dramatic performance is representational in this sense, anymore than every painting is figurative.

While dramatic representation is a paradigm example of make-believe representation, the latter is by no means restricted to actors or props on stage or in film. Non-actors engage in make-believe representation, for example, when they take part in mock job interviews, fire drills, and cardiopulmonary resuscitation (CPR) demonstrations. And of course, children engage in make-believe representation when they play. They pretend to be doctors and nurses and fire fighters and astronauts. And the props they use are also make-believe identical with what they represent. Thus, a doll, a teddy bear, a toy car, a hobbyhorse, a mud pie, the branch of a tree – you name it – are make-believe identical with a baby, a bear, a car, a horse, a pie, a sword, and so on.[9] Make-believe representation is present in all kinds of role-playing, and the latter is a pervasive feature of human life.

5. Intentional Representation I: Formal Properties

I now come to the main kind of representation I wish to discuss in this paper. I use the term 'intentional representation' to refer to any kind of representation that represents by virtue of having the thing represented as its *content*. Since Brentano, philosophers use the term 'intentionality' to designate this feature of representations.[10] It is

[8] H. T. Lehmann, *Postdramatic Theatre*, trans. K. Jürs-Munby (London: Taylor & Francis, 2006).

[9] For an analysis of the use and significance of props in games of make-believe, see K. L. Walton, *Mimesis as Make-Believe* (Cambridge, MA: Harvard University Press, 1990), 21–8. Walton develops a general account of representation in the arts in terms of the notion of make-believe.

[10] Intentionality in this sense should not be confused with intentionality in the psychological sense discussed in section 2, of course.

usually glossed by saying that some bits of the world (e.g. pictures, sentences, mental states) are *about* other bits of the world (e.g. objects, properties, states of affairs), though in fact other prepositions are also used in English to express intentionality, for example 'on' (e.g. 'Steven Pinker's latest book is *on* writing style'), 'in' (e.g. 'Francis Crick won the Nobel prize for his research *in* biochemistry'), and 'of' (e.g. 'Would you like to see the photographs of my sister's wedding?'). I assume that the use of different prepositions in English (and other languages) does not point to substantive differences in kinds of intentional representation.

Philosophers usually take the relation of representation to be irreflexive (nothing represents itself) and asymmetrical (if *x* represents *y*, then *y* does not represent *x*, and vice versa), in contrast to resemblance, which is both reflexive (everything resembles itself) and symmetrical (if *x* resembles *y* in some respect, then *y* resembles *x* in that same respect, and vice versa).[11] The claim that representation is irreflexive and asymmetrical, however, is false. We have seen, for example, that an actor can represent herself on stage or in film (reflexivity), and it is equally conceivable that two actors should represent each other on stage or in film (symmetry). Similarly, a lawyer can represent himself in a court of law (reflexivity), and it is at least conceivable that two people should act as spokespersons for each other in a given context (symmetry).

In all fairness, philosophers who claim that representation is irreflexive and asymmetrical probably have in mind what I am calling intentional representation. But even here their claim is arguably false. Most intentional representation is indeed irreflexive. A musical score, for example, is a representation of a piece of music but not of itself. Similarly, a portrait of Queen Elizabeth is a representation of the monarch but again not of itself. But now consider the following imaginary case based on Roy Lichtenstein's *Little Big Painting* (1965). An Abstract Expressionist painter grabs a white

[11] See e.g. N. Goodman, *Languages of Art*, 2nd edn (Indianapolis: Hackett, 1976), 4; J. Fodor, *A Theory of Content and Other Essays* (Cambridge, MA: MIT Press, 1990), 33; A.H. Goldman, *Aesthetic Value* (Boulder: Westview Press, 1995), 65; D.M. Lopes, *Understanding Pictures* (Oxford: Oxford University Press, 1996), 18; N. Carroll, *Philosophy of Art* (London: Routledge, 1999), 35; M. Rollins, 'Pictorial Representation', in B. Gaut and D. McIver Lopes (eds.), *The Routledge Companion to Aesthetics*, 2nd edn (London: Routledge, 2005), 384. Lopes takes depiction to be irreflexive but concedes the possibility of symmetrical depiction in the passage from his *Understanding Pictures* referred to in this footnote.

canvas, paints thick, dripping brushstrokes on it, and after much exertion calls the result *Thick, Dripping Brushstrokes on White Canvas*. The title suggests that the painting represents thick, dripping brushstrokes on a white canvas, and the painting itself of course consists of thick, dripping brushstrokes on a white canvas. *Thick, Dripping Brushstrokes on White Canvas*, it seems to me, can plausibly be taken to represent itself. Some intentional representation can therefore be reflexive. If so, intentional representation *per se* is non-reflexive rather than irreflexive.[12]

Turning to the putative asymmetry of intentional representation, it is no doubt true that most representation is asymmetrical. Thus, the height of the mercury column in a thermometer represents ambient air temperature, but ambient air temperature does not represent the height of the mercury column. Similarly, a portrait of Queen Elizabeth represents Queen Elizabeth but Queen Elizabeth does not represent her portrait. But now consider the following (again) imaginary case. In an attempt to out-postmodern its rivals, the Tate Modern in London decides to put on an exhibition of replicas of famous paintings (replicas being representations – copies – of the originals). One of the replicas, however, is stolen the night before the opening of the exhibition and, in a further postmodern twist the curator decides to replace the missing piece with the original. The original represents the replica at the exhibition, just as the replica represents the original. Some intentional representation can therefore be symmetrical. If so, intentional representation *per se* is non-symmetrical rather than asymmetrical.

Though philosophers are usually silent on the matter, it is also worth asking whether intentional representation is transitive. In other words, is it the case that if x represents y and y represents z, x thereby represents z? The 'thereby' here is crucial, for the question is whether x represents z *in virtue of* the fact that x represents y and y represents z. Since representation constitutively depends on psychological intention (see section 2), x can only represent z, therefore, if it is intended that it represent z *by representing* y. Effectively, then, for any three things x, y, and z, it is the case that if x represents y and y represents z, x thereby represents z if and only if (i) x represents both y and z, and (ii) x represents z by representing y.

[12] Lichtenstein's painting does not help me establish the point, for the depicted brushstrokes were not in fact produced by thick, dripping brushstrokes but by lots of thin and tidy brushstrokes. This, of course, is deliberate. The painting is widely regarded as a satirical comment on the action paintings of Jackson Pollock and the like.

Undoubtedly, some intentional representation is transitive in this sense. Suppose, for example, that a mother-to-be goes in for an ultrasound test and during the test her partner takes a picture with his phone of the screen showing the foetus in the womb. The phone picture is a representation of the image on the screen, for the intention that photographs represent what they are photographs of is built into the very practice of photography (perhaps because of the causal nature of the medium) and in that sense is the default intention.[13] At the same time, it is clear that the interest of the father-to-be lies in what the image on the screen represents and not in the image *per se*. The phone picture thus satisfies condition (i) above: it is both a representation of the image on the screen and of the foetus represented in that image. Condition (ii) is also satisfied, for the phone picture represents the foetus precisely by representing the image on the screen (as opposed to, say, the schematic representation of the female reproductive system hanging on the wall behind the screen).

Not all intentional representation, however, is transitive in this way. Suppose a supplier of neon lights takes a picture with her phone of the tubes used in a neon sign under construction, with a view to preparing a quote for a new delivery. The phone picture is a representation of the neon tubes, and the neon tubes are a representation of, say, the content *we bake our own bread*. The phone picture itself, however, is not *thereby* a representation of that content. For, we may imagine, the supplier's interest in taking the picture is not in the particular content represented by the array of neon tubes but only in the kind of tubes used. (If necessary, imagine that she is unaware that the array of neon tubes represents anything at all.) Some intentional representation can therefore be intransitive. If so, intentional representation *per se* is non-transitive.

6. Intentional Representation II: Subject vs. Predicative Content

A distinction can be drawn between two aspects or dimensions of the content of an intentional representation, namely between *what* a representation represents and *how* it represents what it represents. Let us call the former the 'subject' of the representation, and the latter its 'predicative content'. The distinction is clearest, perhaps, in connection with figurative pictures (e.g. figurative paintings, drawings,

[13] Which is not to say, of course, that the intention cannot be undermined in particular cases, as abstract photography shows.

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prints, photographs), which are all examples of intentional representation. The *subject* of a figurative picture is what the picture is a picture *of*, e.g. Marilyn Monroe, a horse, a bowl of fruit, the D-Day landings, a rainy afternoon in Buenos Aires. The *predicative content* of a figurative picture, on the other hand, is the manner in which the subject is depicted, i.e. the qualities the picture attributes to the subject. For example, a picture of Marilyn Monroe may represent her *smiling as the breeze from a subway grate blows up her skirt*; a picture of a horse may represent it *as athletic, with a glowing black coat and a soft white mane*; and so on.

Two pictures can have the same subject but different predicative content; they do so whenever they depict the same subject as possessing different qualities (e.g. a photograph and a caricature of Barak Obama). Less obviously, two pictures can have the same predicative content but different subjects.[14] Take two pictures with the same predicative content; say, two pictures that depict their corresponding subjects as having the physical qualities (characteristic of depictions) of Jesus Christ. Suppose, next, that the painter of the first picture intended to depict Jesus Christ, while the painter of the second picture intended to depict Barak Obama. Who is the subject of the second picture: Christ or Obama? Well, it depends. If the painter is competent, is not under the influence of a powerful drug, and so on, then I think we would say that it is Obama. Of course, the painting does not *resemble* Obama (except metaphorically) but rather Christ. No matter, the subject of the picture is Obama, for that is whom the painter *intends* to represent and his painting Obama *as Jesus Christ* (predicative content) is no accident. Perhaps he intends to make an ironic comment on the messianic status that a good portion of the American electorate conferred on Obama during the 2008 presidential campaign, or whatever. Barring incompetence and abnormal circumstances, then, the subject of a picture is determined, not by the picture's predicative content, but by the intentions of the picture maker – intentions that are typically conveyed to the viewer through names, titles, captions, and the like.

This is not to say, of course, that pictorial *misrepresentation* is not possible. It is possible, for while intention is decisive in fixing the subject of a picture, it is not decisive in fixing its predicative content.[15] The predicative content of a picture, it will be recalled, consists in the qualities the picture ascribes to its subject. But a

[14] Cf. Lopes op. cit. note 11, 96ff and J. Hyman, 'Depiction', *Philosophy* **71** (2012), 138–9.

[15] Cf. Hyman op. cit. note 14, 139–40.

picture maker can unwittingly depict a subject as having qualities other than those *intended* of the subject. For example, I can intend to depict Obama as a wise statesman but due to incompetence depict him instead as a lame duck of a president. I intended to predicate certain qualities of Obama, but I have in fact predicated quite different ones. The qualities I predicate of Obama are beyond my sphere of influence, as it were, for they determine what the subject 'looks like', i.e. what it resembles. And that is a matter of what in the world, if anything, possesses the qualities I predicate of it in my painting.

The subject of a figurative picture need not be a real-world entity, so purely fictional figurative pictures also have a subject. This, I think, is in line with the ordinary notion of a picture's subject. Lopes, who also makes use of the notion of 'subject', proposes to depart from ordinary usage in this respect and restrict the notion to 'the real-world entities a picture represents'.[16] The 'principal advantage of my choice of terminology', he says, 'is that it encompasses not only objects but also scenes, events, and states of affairs'.[17] But the ordinary notion of 'subject' is not restricted to objects depicted. Rubens' painting *The Rape of Deidamia* (1636–8), for example, depicts the abduction of Deidamia by the centaur Eurito during her wedding banquet. It is perfectly ordinary (and correct) to say – as I have just implied – that the subject of Rubens' painting is her abduction, i.e. an *event*.

Purely fictional subjects depend for their existence on there being representations of them. There are several possibilities here. If I draw a man on a piece of paper (no particular man) and a few minutes later I burn the piece of paper, the man goes out of existence with the piece of paper. Here a purely fictional subject depends for its existence on a particular token representation. Suppose, next, that I write an entirely original novel about the life of a purely fictional subject but later have a change of heart and decide to burn the original manuscript and instruct my publisher to pulp every copy of the novel. (Suppose, too, that I and everyone who has read the novel suffers from irreversible amnesia and no further thoughts about the subject are entertained ever again.) The subject of my novel goes of out existence with the last copy of the novel. Here a fictional subject depends for its existence on the existence of some token representation or other, but not on any particular token. Finally, consider a fictional character, say Oliver Twist. Oliver Twist was

[16] Op. cit., note 11, 3.
[17] Op. cit., note 11, 3.

introduced for the first time in Dickens' homonymous novel and would not have existed had Dickens' not written the novel. Thanks to countless retellings of the story in film, TV, theatre, and musicals, however, Oliver Twist's existence now *transcends* Dickens' novel, so that even if every copy of the novel were to be destroyed, along with every record and every memory of the novel's existence, Oliver Twist – the character – would not thereby go out of existence. Some fictional subjects, therefore, depend for their existence on some representation type or other, but not on any particular one.

For reasons implicit in the foregoing, it would be incorrect to assimilate the distinction between the subject and the predicative content of a figurative picture to Frege's distinction between the sense and the reference of a linguistic expression. Frege introduced his distinction in order to explain how identity statements can be both true and informative.[18] The identity statement 'The morning star is the evening star', for example, is true because the expressions 'the morning star' and 'the evening star' have the same reference, i.e. the planet Venus. The identity statement is informative, on the other hand, because the two expressions differ in the sense or mode of presentation of their reference: 'the morning star' presents Venus as the star seen in the morning while 'the evening star' presents it as the star seen in the evening.

In a recent article in this journal, John Hyman proposes to extend the sense/reference distinction to pictures.[19] Thus, two portraits of the same individual, one of which presents him as dark-haired and seated and the other as white-haired and standing can, he says, helpfully be thought of 'as designating, or standing for, the same individual … while differing in [their] "mode of presentation" – in other words, as having the same reference, but a different sense'.[20]

Frege's notion of reference differs sharply from my notion of a picture's subject. A singular term purporting to refer to a person only has a reference if the person in question exists. Thus, the name 'Hamlet' only has a reference if a certain flesh-and-blood Danish prince exists. Since the Danish prince does not exist, the name lacks a reference. But a picture of Hamlet *has* a subject, namely Hamlet, even if the flesh-and-blood Danish prince does not exist. Hyman, however, proposes to cancel the existential presupposition

[18] G. Frege, 'On Sense and Reference', in P. Geach and M. Black (ed. and trans.), *Translations from the Philosophical Writings of Gottlob Frege*, 2nd edn (Oxford: Blackwell, 1980), 56–78.

[19] Op. cit. note 14.

[20] Op. cit. note 14, 137.

of Frege's notion of reference. He argues that what matters for reference is not existence but possession of clear criteria of individuation. The name 'Malvolio', for example, has a reference (as would a picture of Malvolio) for though purely fictional, the question 'who or what is Malvolio?' has a definite answer, viz. 'he is the character in *Twelfth Night* who wears yellow stockings with cross gartering'.[21]

There are two reasons why I wish to resist Hyman's distinction between sense and reference as applied to pictures. First, while Frege's notion of sense is close to my notion of predicative content, for Frege the sense of an expression determines its reference, whereas – as we have seen – the predicative content of a picture typically does not determine its subject. Secondly, and more importantly, while Hyman's notion of reference applies to fictional and non-fictional pictures alike, it does not apply to pictures that have what he calls 'generic content'.[22] A picture has generic content just in case it does not depict any particular thing. For example, a picture of a horse that is not any particular horse is a picture with generic content. But a picture of a (generic) horse has a *subject* all the same, namely a horse. For any such picture we can distinguish between what it represents (subject) and how it represents what it represents (predicative content). I therefore stick to my distinction between the subject of a picture and its predicative content. All figurative pictures have a subject and a predicative content. The latter two comprise their content *simpliciter*.

The subject/predicative content distinction might be thought to run into difficulties in cases where a picture maker uses one thing as a model for another thing. Suppose that in the run up to Christmas the Coca-Cola Company runs an advertising campaign consisting of billboards photographically depicting Santa Claus drinking a can of Coke. So described, the subject of the photograph reproduced in those billboards is Santa Claus, who is depicted as drinking a can of Coke (predicative content). But the subject of a photograph – at least if the photograph is analogue – is normally causally involved in the making of the photograph (roughly, the light reflected off the surface of the subject causes a chemical change in the photo-sensitive film in the camera, which change can then be developed into a negative from which prints – photographs – of the subject can be made). Since Santa Claus is not a real-world entity but a purely fictional character, it cannot be Santa Claus that is causally involved in the production of the photograph used in the

[21] Op. cit. note 14, 134.
[22] Op. cit. note 14, 135.

Coca-Cola billboards but rather a male model dressed as him. This suggests that the subject of the photograph is not Santa Claus after all but the male model so dressed.[23]

We can accommodate this difficulty by drawing a distinction between the 'causal subject' of the photograph (the male model dressed as Santa Claus) and the 'represented subject' (Santa Claus).[24] In so far as we are treating the photograph the way the photographer or campaign designer intended it, the subject proper of the photograph is its represented subject – i.e. Santa Claus – for that is whom they intend the photograph to represent. Of course, there can be contexts where the subject proper of the photograph – the represented subject – is not Santa Claus but the male model dressed as such. But those are contexts in which the photograph *is not treated as originally intended*. Suppose, for example, that the advertising agency hired by Coca-Cola to produce the billboard campaign is in the process of casting Santa Claus. They go through countless photographs of Santa-Claus-clad male models used in previous advertising campaigns in search of the perfect Santa Claus. In this context, the subjects of the photographs examined are the male models – i.e. the photographs' causal subjects – for they are the focus of interest of the people at the advertising agency.[25]

I have so far considered the subject/predicative content distinction in connection with figurative pictures because the distinction applies most straightforwardly to them. But the distinction is intended to apply to intentional representations generally. The subject of Julian Barnes' novel *Levels of Life*, for example, includes the French actress Sarah Bernhardt and the British Army officer Fred Burnaby (real people, as it happens), whom the author represents as passionate, larger-than-life characters (predicative content). Similarly, the

[23] Cf. P. Maynard, 'Photography', in B. Gaut and D. McIver Lopes (eds.), *The Routledge Companion to Aesthetics*, 2nd edn (London: Routledge), 616.

[24] In much photography, of course, the two subjects are one and the same.

[25] The need to draw the causal–represented subject distinction does not only arise in connection with photography. For a different case, consider the fact that Rembrandt used his mistress Hendrickje Stoffels as a model for his paintings of Bathsheba (Lopes, op. cit. note 11, 101). Hendrickje Stoffels is the causal subject of the paintings, I think, but Bathsheba is the represented subject, for that is whom Rembrandt intended to represent, as is made abundantly clear by the titles of the paintings – e.g. *The Toilet of Bathsheba* (1643), *Bathsheba at her Bath* (1654), *Bathsheba Holding King David's Letter* (1654).

fourth movement of Beethoven's *Pastoral* symphony represents a storm (subject) as a violent and menacing force of nature (predicative content). Or, for a rather different sort of example, each reading on a barometer has the quantity measured (viz. atmospheric pressure) as its subject and the specific value it ascribes to that quantity (e.g. 1020.8 hectopascals) as its predicative content.

By way of further characterisation of the concept of intentional representation, I will now distinguish two main kinds of intentional representation, namely iconic and symbolic.

7. Iconic and Symbolic Representation

Much of the representation around us exploits the resemblance – visual, auditory, tactile, olfactory, and/or gustatory – that holds between a thing represented and the thing that represents it. If what is represented is an animate being, resemblance in point of behaviour and (if applicable) psychology are also typically, and often crucially, involved.

Following Peirce, we can call such representations 'iconic'.[26] A representation is iconic only if it resembles (in a respect and degree determined by context) what it represents. Notice that resemblance is a necessary but not a sufficient condition for iconic representation. After all, two things can resemble each other – even do so perfectly – without either representing the other (e.g. two cans of Coke). What is missing in such cases, as I argued in section 2, is the relevant psychological intention of taking one of them to represent the other. Iconic representation includes much photography, painting, drawing, printmaking, and sculpture; images produced by medical diagnostic techniques, such as X-ray radiography and fMRI; programmatic music and sound effects; synthetically produced smells and tastes.

It is standard to classify these and other iconic representations in terms of the sense modality through which we perceive the resemblances they exploit. Thus, a visual representation of x is a representation of the way x looks (or would look); an auditory representation of x is a representation of the way x sounds (or would sound); and so on. Iconic representations, however, can also be multimodal, i.e. can be perceived through more than one sense modality. This is the case with non-silent films and sculptures, for example. Relatedly, iconic

[26] C. S. Peirce, *Elements of Logic*, in *The Collected Papers of Charles Sanders Peirce*, vol. 2 (Cambridge, MA: Harvard University Press, 1933).

representations can be *cross-modal*, i.e. a content naturally given to us through one sense modality can be iconically represented through a medium naturally given to us through a different sense modality. A striking example is that of 'tactile graphics', images that employ raised surfaces to convey visual information through touch.

The other main variety of intentional representation I wish to distinguish is symbolic representation. Peirce defined a symbol as a sign 'whose special significance or fitness to represent just what it does represent lies in nothing but the very fact of there being a habit, disposition, or other effective general rule that it will be so interpreted'.[27] Put differently, symbols are *arbitrary* signs that mean what they do, not by resembling what they stand for, but by being conventionally associated with them.

Words are paradigm symbols, of course. The English word 'dog', for example, does not look or sound like a dog; it means *dog*, rather, because there are rules (i.e. conventions) in English that govern its use and determine its meaning. It is true that some words do exploit their resemblance with what they represent, e.g. onomatopoeic words and ideographs. But they are exceptions rather than the rule. By and large, (modern) linguist representation does not exploit phonetic or visual resemblances with the things they represent.

An immediate consequence of the conventional nature of symbolic representation generally, and of linguistic representation in particular, is that in order to understand such representations one must know the relevant conventions. A monolingual speaker of Spanish or Urdu, for example, will not understand the English sentence 'Dogs bark'. Users of symbolic systems of representation come to know the conventions governing those systems by learning them. In the case of languages, learning the relevant conventions is a matter of extensive training. The notion of a convention as such, however, does not rule out the possibility of their being innate. It is conceivable that people should be born with an innate capacity not only to acquire a language, but also to speak a particular language, say French.[28]

To say that the connection between a symbol and what it represents is conventional or arbitrary is not necessarily to say that it is contrived

[27] Op. cit., note 26, 1442.

[28] Cf. L. Wittgenstein, *Philosophical Investigations*, rev. 4th edn, trans. by G.E.M. Anscombe, P.M.S. Hacker, and J. Schulte (Oxford: Wiley-Blackwell, 2009), §495; C. Peacocke, 'Depiction', *The Philosophical Review* **96** (1987), 407–9.

or artificial. On the contrary, sometimes the connection is so deeply ingrained in our modes of thought and talk as to feel perfectly natural. Consider, for example, a line graph showing the projected growth in world population from 1950 to 2050. An upward line represents the growth in population. Why *upward*? After all, a downward line could convey the very same information if the appropriate changes were made to the x- and y-axis. The answer, of course, is that it is a convention of such graphs to represent increases in the quantities represented by means of an upward line and decreases by means of a downward line. That convention, however, reflects a deeply ingrained metaphorical association in our minds between 'more' and 'up' – the so-called 'more is up' metaphor. In their study of the way metaphors shape language and thought, Lakoff and Johnson speculate that this metaphor has a physical basis in the fact that 'if you add more of a substance or of physical objects to a container or pile, the level goes up'.[29] They further speculate that we pick up this fact early on in life and that it even modifies the physical architecture of our brains.

Symbolic representation is not restricted to natural languages like English or German. Any kind of medium in which representation occurs by virtue of conventional or arbitrary correlations between elements of the medium and content counts as symbolic. Thus, symbolic representation also includes logico-mathematical symbolism; American Sign Language; Braille writing; Morse code; musical notation; the International Phonetic Language; lexigrams; representations produced by measuring techniques such as spectography and electrocardiography; line graphs, bar graphs, pie charts, and the like; standards, ensigns, and badges; and so on.

While serviceable for the purposes of taxonomy, the iconic–symbolic distinction is not clear-cut, and intentional representations should realistically be construed as ordered along a continuum with the purely iconic at one end, the purely symbolic at the other end, and intentional representations containing both iconic and symbolic elements lying somewhere in between the two. Where exactly they lie, and hence how we ultimately choose to classify them, depends on the quantity and/or weight attached to the iconic and symbolic elements they contain. We are likely to classify toilet signs as symbols rather than icons, for example, even though part of their content (roughly, *men's toilet here* and *women's toilet here*) is represented iconically. The same goes for fire exit signs, no-smoking signs, many road

[29] G. Lakoff and M. Johnson, *The Metaphors We Live By* (Chicago: Chicago University Press, 1980), 16.

signs, and other information signs. On the other hand, we classify Magritte's painting *La trahison des images* (1928–9) as an icon, even though it includes the French words '*Ceci n'est pas une pipe*'; and the same goes for religious paintings that symbolically represent the holy status of certain persons through the use of halos, and for fMRI brain scans, which symbolically represent levels of blood flow/ neuronal activity through colour coding.

8. Summing Up: A Typology of Representation

In this paper I have distinguished four broad types of representation, viz. proxy, make-believe, and intentional representation, as well as representation *simpliciter*. Within the category of intentional representation, I have further distinguished between iconic and symbolic representations. The following table summarises the typology of representation proposed and illustrates the possible combinations among types of representation. (Blacked out squares are redundant.) The only combination excluded is that of representations that are both proxy and make-believe. While a thing can certainly count as a proxy representation in one context and as a make-believe representation in another, I am doubtful that there is anything that can count as both within a *single* context.[30,31]

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[30] Suppose a person is both a lawyer and an actor. As a lawyer he engages in proxy representation and as an actor he engages in make-believe representation. But there is no context – no activity, if you like – in which he engages in both. He may, of course, play the role of a lawyer in a courtroom drama, but in that context he is not engaged in proxy representation – he only *pretends* to do so.

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		Intentional Representation		Proxy Representation	Make-Believe Representation
		Iconic Representation	Symbolic Representation		
Intentional Representation	Iconic Representation	✓ (e.g. journalistic photographs, portraits)			
	Symbolic Representation	✓ (e.g. onomatopoeic words, ideographs)	✓ (e.g. languages, information signs)		
Proxy Representation		✓ (e.g. galley proof of poster for Stanley Kubrick's *A Clockwork Orange*)	✓ (e.g. calligraphy samples)	✓ (e.g. lawyers, politicians)	
Make-Believe Representation		✓ (e.g. castle painted on a backdrop in a performance of *Hamlet*)	✓ (e.g. sign with the word 'bar' written on it in a theatrical performance)	✗	✓ (e.g. actors, toys)

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