

Introduction

- Gibbard is going to argue that, under certain conditions, it's plausible to claim that a statue – (s) – is identical to the piece of clay – (c) – from which it is made. If this is so, then Gibbard will show that this identity is contingent¹.
- To define “contingent identity”, Gibbard introduces the formula:
 $s = c \ \& \ \diamond (s \text{ exists and } c \text{ exists and } s \neq c)$, which translates as:
 “the statue is identical to the clay, and it's possible that both statue and clay should exist and yet the statue not be identical to the clay”.
- Gibbard sees (but doesn't immediately specify) many advantages to the claim that not all true identities are necessary. To substantiate this claim he'll need to develop theories about:
 1. Concrete things, and ...
 2. Proper names.
- Gibbard agrees that Kripke has shown² that most purported examples of contingent identity fail because they depend on incorrect accounts of necessity and reference. Prior to Kripke it was thought that all necessary truths could be known a priori, so a manifestly a posteriori identity such as “Hesperus = Phosphorus” was taken to be only contingently true.
- Kripke removed the concept of necessity away from epistemological concerns and simply asked whether a truth might have been false had the world been different. If it might, it's a contingent truth, otherwise a necessary one. You can't show a truth to be contingent by showing it to be known a posteriori.
- According to Russell and “cluster theorists”, names get their references from people's beliefs. So, on these accounts, “Hesperus” corresponds to (a preponderance of) people's beliefs about Hesperus. Because beliefs about Hesperus and Phosphorus are such that, in some possible worlds, different things answer to “Hesperus” and to “Phosphorus”, the identity is contingent³.
- Gibbard doesn't repeat Kripke's attacks on these theories of proper names. Even if these attacks succeed, there may remain some contingent identities (though not “Hesperus = Phosphorus”). However, he does now give an example (“Goliath = Lump1”) of a contingent identity. His claim is that Kripke has transformed but not eliminated the subject of contingent identity.

¹ Ie. in arguing for contingent identity, Gibbard is going to argue against Kripke's view that identities are *necessary*; ie. true in all possible worlds. In the standard example, quoted later in this paper, Hesperus is identical to Phosphorus in all possible worlds in which both exist. We need to remind ourselves of the three dichotomies:

Necessary	Contingent	Metaphysics
A priori	A posteriori	Epistemology
Analytic	Synthetic	Semantics

² Gibbard is writing in 1975, soon after Kripke published the article *Naming and Necessity*. Rather irritatingly, page references are to the article in *Semantics of Natural Language*, rather than to Kripke's book.

³ This is true (of beliefs) even under Kripke's account of *necessity*, though not under his account of *naming*.

Section I (The Identity of Statues)

- Gibbard now returns to his statue. How might a statue be identical with its clay? Gibbard takes identity to be *timeless* and *strict* (the latter meaning “all properties in common”). One such property is that the identicals must start and stop existing at the same time as one another.
- So, Gibbard needs *persistence criteria*⁴ for statues and for pieces of clay. He distinguishes between pieces and portions. Pieces are contiguous and cease to exist when scattered (broken up) or merged with other pieces. They are made up of portions, which continue to exist when scattered or aggregated.
- A piece is also a *lump*, which is defined by the “sticking relation”⁵. Pieces are distinguished from portions of liquid and powder, and from heaps of solid objects, none of which involve being stuck together.
- How should we define the persistence criteria of a piece? Gibbard’s first attempt is as follows:
 1. A piece of clay comes into existence when all parts of P (the portion of which it consists) stick to one another and to no other clay.
 2. This piece of clay ceases to exist when parts of it come off it or become stuck to other pieces.
- Gibbard acknowledges that this is too strict a definition, and allows mitigants:
 1. Loss due to wear.
 2. Accretion of clay dust.
- Note also that:
 1. Gibbard doesn’t think these issues are tricky, provided any change is gradual, and ...
 2. He only seems to consider the clay in the piece⁶.
- So, Gibbard imagines a piece of clay as characterised by a function⁷, $P: T \rightarrow C$, where T are instants of time and C are portions of clay, satisfying 4 conditions:
 - a) The domain of the function is a contiguous interval of time
 - b) The value of the function at time t is the portion $P(t)$. All the parts of this portion are stuck together and not stuck to any particles of clay that aren’t part of this portion.
 - c) Any change in $P(t)$ with respect to time is at most slow.
 - d) P isn’t embedded in some “larger” function (ie. one with a larger domain⁸, a longer-lasting portion).
- Having defined what he means by a *piece*, Gibbard now moves on to defining persistence criteria for clay *statues*.
- For statues, he’s dealing with tokens and not types. Two statues from the same mould are different statues. A particular statue requires both its *shape* and the *piece* of clay to define it. The persistence criteria of statues are combined from

⁴ That is, what is it that makes a thing the same thing over time, and what defines when it comes into existence and goes out of existence.

⁵ “Being part of the same lump” or “being stuck together” are equivalence relations (being reflexive, transitive and symmetrical) and divide portions into equivalence classes, namely pieces or lumps).

⁶ Presumably for the sake of simplicity or clarity.

⁷ We need to be clear on what this function is. As it’s a function, it must be defined and single-valued throughout its domain; that is, there must be precisely one value $P(t)$ for each t in the domain. Hence, the function doesn’t try to define which *particles* form part of the portion, but only at each instant of time which portion makes up the piece.

⁸ Larger *ranges* (“bigger pieces”) are excluded by (b).

those for pieces and shapes. Gibbard defines the persistence of shape similarly to that of piece, ie. a shape starts when it's made and persists until it changes, and allows the same caveat of "slow change" by wear, accretion or slight bending for the same shape to persist⁹.

- Very importantly, Gibbard claims that he doesn't need this set-up to be naturalistic (ie. to approximate to what we normally mean by statues and pieces) but can be purely stipulative¹⁰. However, he does make one important claim; namely, that pieces and statues are objects, with the usual logic of objects, and which can be designated by proper names.
- So, are the piece of clay and the statue identical¹¹? The usual answer is "no", because they differ in their properties. Basically, these differences are usually temporal – the piece comes into existence before the statue, into which it is shaped.
- However, by sticking two perfectly-formed half-statues together in an instant, and then subsequently smashing the statue in an instance, the piece and the statue persist over exactly the same interval of time. In this situation, Gibbard thinks that piece and statue are identical.
- His reasons for the above claim are that:
 1. Piece and statue started and ended their existence at the same time as one another.
 2. They shared the same properties.
 3. They took part in the same events.
- If the statue is in some sense something over and above a piece of clay of a certain shape¹², what is it¹³?

⁹ One wonders whether this is subject to sorites or "Ship of Theseus" effects. Additionally, it seems to me that statues can be subject to very serious damage and still retain their identity – the Venus de Milo has remained the same statue despite losing its arms. By having very strict identity criteria, Gibbard seems to have trivialised the whole question.

¹⁰ This is a very important to dispute. However, it's important to note is that Gibbard is trying to find one example of contingent identity, and if he can do this he's proved his point that contingent identity exists. To do this, he can use idiosyncratic definitions, so that instead of talking about statues and pieces of clay, he's talking about Σstatues and Πieces of Klay. If a Σstatue is only contingently identical to its Πiece of Klay, then he has proved his point. This would only fail (assuming the case for identity is sound) if such idiosyncratic definitions were incoherent or inconsistent with one another. We may have lots to quibble about if the argument is about statues and pieces of clay, but less if it is about Σstatues and Πieces of Klay. However, we may still consider that the question of contingent identity really rests on his definition of identity. If he's talking about Jidentity, then we may lose interest.

¹¹ Note that this identity has parallels in the philosophy of mind.

¹² Ie. "that very piece of clay".

¹³ Well, is there indeed! The question is, what makes a statue a *statue*, rather than some randomly formed lump of clay? This can be brought into clearer focus by considering a stone-age flint axe. When is a chipped flint an axe rather than a chipped flint (say, one knocked about in a river bed). One is tempted to say that it's an axe if the person who made it intended it as an axe, or even if the person who found it in the river never did anything with it other than put it in his spare axe cave, but who intended to use it as an axe had he not unfortunately got eaten by a sabre-tooth before he could do so. Or consider a Mars bar. This comes into existence at the same time as its lump of goo and lasts just as long as I restrain myself from taking the first bite. Hence, it's a perfect match for Gibbard's statue. But, say a malformed bar drops out of the machine through a perforation in the tube that has the Mars bar-forming nozzle on the end. This is only a Mars bar if I decide it is and take a bite. Hence, one can argue that there's more to statues, flint axes and Mars bars that the stuff that makes them up and the events they undergo – in particular, ideas in peoples' minds. We might extend the discussion beyond artefacts to natural kinds. Is a sheep more than its stuff and events irrespective of anyone ascribing sheepiness to it? No doubt this is a highly contentious issue. Whatever the result of this debate, Gibbard can be accused of skating over the issues.

- Gibbard now claims that the (presumed) identity of the statue and the piece of clay is contingent. He names his statue Goliath and his piece of clay Lump1, and plugs these names (admitting that it's a bit odd to *name* a lump of clay) into the “contingent identity” formula at the start of this paper. I.e.:

$$\text{Goliath} = \text{Lump1} \ \& \ \diamond (\text{Goliath exists and Lump1 exists and Goliath} \neq \text{Lump1})$$
- So, how could this identity be contingent? Well, he could have squeezed Goliath (quickly) into a ball before it dried. Then Goliath would no longer exist, according to his strict definition of existence, but Lump1 still would. For $\text{Goliath} = \text{Lump1}$ we need identity over the lifetime of both, but here we wouldn't have it. This is the whole point – the identity is contingent, because there are possible worlds in which $\text{Goliath} \neq \text{Lump1}$ (though, in the actual world, $\text{Goliath} = \text{Lump1}$ because Gibbard didn't squeeze it).

Section II (Contingent Identities)

- This “contingency” consequence of the identity of Goliath of Lump1 is very important in the light of Kripke's accounts of identity. How are we, therefore, to justify $\text{Goliath} = \text{Lump1}$? It seems initially plausible, given that Goliath and Lump1 share all the same properties and events (as seen in the last Section)^{14,15,16}.
- According to Gibbard, a statue is a temporal segment¹⁷ of a piece of clay. This gives a systematic account of the relation between statues and the clay of which they are made. As a special case¹⁸, Gibbard claims, we may have identity between the statue and its clay.

¹⁴ The problem seems rather that the persistence criteria for Goliath are too strict. For persistence of persons, say, we'd need very much more liberal allowances for deformation. It seems clear to me that if I drop a statue and it breaks into 1,000 pieces, it remains the same statue (just as I remain the same person if I'm run over by a bus). It's just a broken statue. If the statue is then repaired, it is still the same statue.

¹⁵ The problem may be due to equivocation between synchronic and diachronic identity. For two things to be identical at the same instant, they need all their properties in common. For something to be the same thing across time, it can change its properties very radically provided we have a story of continuous change (this is – paradoxes apart – the message of the “Ship of Theseus”). Gibbard is trying to compare two time-slices of things, where part way along, their properties change. His claim is that in the real world we have $\text{Goliath} = \text{Lump1}$, whereas in the possible world we don't. Looking across the two worlds, $\text{Lump1}_{\text{wa}} = \text{Lump1}_{\text{wp}}$ by Gibbard's definition of the persistence of lumps. However, $\text{Goliath}_{\text{wa}} \neq \text{Goliath}_{\text{wp}}$, by his definition of the persistence of statues. But, we can deny this inequality, using sensible persistence criteria for statues. The question is – could we utterly destroy the statue without destroying the lump. I think not. If he'd moulded Goliath into a perfect sphere, and someone had asked “where's Goliath”, we'd have pointed to that clay sphere.

¹⁶ But, now a different issue arises. If I break Goliath in half, Lump1 is destroyed (according to Gibbard). So, if I allow the persistence criteria for statues to be more liberal than Gibbard does, then it's Goliath that persists, and we still have a case of contingent identity. It seems to be using persistence as part of the definition of a thing that causes the problem (tendentiously so-called).

¹⁷ This is the important issue. We have already imported into the definition of a thing its continuity conditions (Gibbard does this in a strict but vague way). We don't usually do this (especially across possible worlds – though this is, of course, part of Gibbard's point). There are usually two independent questions about identity:

1. How does a thing remain the same over time?
2. How do we identify the same thing across possible worlds.

According to Kripke, as we will see, (2) is *stipulated* (by having the same origin) not *discovered*.

¹⁸ This, it seems to me, is where he goes wrong – the statue is always identical with its piece of clay at a point in time, however its shape changes – at least this is a common-sense use of “identical”. But, to account for maintained identity over time, we need to allow identity to persist despite change. Hence, we can't compare two things across possible worlds and say they are not-identical because their

Concrete Things

- Now, as promised at the start of the paper, Gibbard gets round to giving an account of physical (concrete) things. He considers what the fundamental physical entities are that will provide a systematic physical account of statues and pieces of clay. He cites two possibilities:
 1. Point-instants (where Goliath = Lump1 iff they have the same set of point-instants).
 2. Particles (where a concrete thing might be a function from instants in time to sets of particles¹⁹).
- Either way, concrete things can be given a place in a comprehensive view of the world.

The plan for the Rest of the Paper

- The aim of the rest of Gibbard’s paper is to:
 1. Provide a theory for why Goliath = Lump1, with concrete things being either sets of point-instants or slowly changing sets of particles.
 2. Develop a theory of proper names.
 3. Develop a theory of modal and dispositional properties for concrete things.
 4. Account for concrete things as sets of point-instants (Appendix).
- We will only be looking at the first two of these aims.

Section III (Proper Names)

- So, how do proper names like “Goliath” and “Lump1” work? A consequence of Kripke’s account is that Goliath \neq Lump1; Gibbard hopes to give an account of proper names at least as plausible as Kripke’s.
- According to Kripke, proper names are used to talk of both actual and possible worlds, and are rigid designators. That is, if they denote anything at all in a possible world, they denote the same thing as they denote in the actual world.
- Gibbard now considers the actual world (W_0), in which Goliath isn’t squeezed, and a possible world (W^1) in which it is. Then the consequence of Gibbard’s argument is that:

i. In W_0 , Goliath = Lump1, while ...

ii. In W^1 , Goliath \neq Lump1.

However, if “Goliath” is a rigid designator, this is a contradiction. This is because a rigid designator denotes the same thing in all possible worlds, and since both Goliath and Lump1 exist in W^1 they must denote the same thing in W^1 (given that they denote the same thing in W_0). Hence (ii) must be false if “Goliath” is a rigid designator.

- So, is “Goliath” a rigid designator? Well, “Goliath” is a rigid designator iff it refers to the same thing in every world in which it refers to anything.

properties differ, otherwise we could never explain diachronic identity within the actual world. Gibbard tries to contain the problem by his “gradual change allowed” caveats, but fails to see that identity persists despite rapid radical change provided we have a “continuity” story to tell.

¹⁹ Note that the range of the function is sets of particles, not particles (otherwise we wouldn’t have a function). This seems, incidentally, hopeless as an account of a concrete thing such as a statue, or even a lump, as there’s no account of shape or integrity.

- In the actual world (W_0), there is (according to Gibbard) a single thing which is both a statue and a lump of clay, and which Gibbard broke. In W^1 there are two things (again according to Gibbard): Goliath, which is squeezed into a ball (and allegedly squeezed out of existence) and Lump1 (which remains in existence after it's squeezed. Which of these two things is the same thing in W^1 as the one thing in W_0 ?
- Gibbard can't make sense of this question²⁰. He thinks we need to designate "qua X" the things we're trying to identify across possible worlds, where "X" is "statue" or "lump of clay" in this case.
- That is, he thinks it makes sense to ask about the "same statue" in different worlds, but not the "same thing".
- So, Gibbard thinks that proper names refer to things of a certain kind, and that we can define persistence criteria for these kinds^{21,22}.
- On rare occasions, a thing will be of two different kinds, each of which will have different persistence criteria, and the thing will have two proper names, one for each kind.
- In this case, the identity between the two things (?) is contingent. It's truly an identity, because in W_0 the two names designate the same thing, which ceases to exist at the same time under both criteria; but, it's contingent because, in W^1 , the things designated by the two names cease to exist at different times (Goliath is a temporal segment of Lump1).
- Consequently, a name isn't (for Gibbard) a rigid designator (or not) all by itself. It's only X-rigid, where "X" is a **sortal**²³, representing the kind of thing it is.
- Statues are special cases, because there are two kinds of X with respect to which they can be X-rigid.
- **Gibbard summarises:** a proper name denotes a thing in W_0 and "invokes" a sortal with certain persistence criteria. It then denotes the same *sort* of thing in every world in which it denotes at all.
- Gibbard feels that he's left with two questions:-
 1. How does a name acquire its reference in the actual world?
 2. What makes a thing in another world the same X-thing?

What makes a thing in another world the same X-thing?

- Taking the 2nd question first, it's the origin of the statue that makes it the statue it is – that individuates it – whatever subsequently happens to it.
- By way of further explanation, W^1 branches from W_0 when Goliath is squeezed. "Goliath" picks out the same statue in both worlds (because Goliath in W^1 has exactly the same history before the branch as Goliath in W_0), and "Lump1" picks

²⁰ Why is it a problem. Lets suppose the squeezing takes place at time t in W_1 . Then, before t , both are picked out, and after t only the lump is (if you accept Gibbard's continuity criteria). It's only if we accept Gibbard's "things as time-slices" approach that we have problems.

²¹ So, on Gibbard's account it's not meaningful to say that a prince turns into a frog and remains the prince (nor Heliogabalus into a swine, nor Nebuchadnezzar into an ox, and remain the same person; though the prince changing into a pauper is OK). Nor can we ask certain apparently meaningful counterfactuals, such as what if x had been a Y – there x is of kind $X \neq Y$.

²² Also, does this commit Gibbard to the existence of natural kinds (and, is this a problem)?

²³ This is a term that Strawson borrowed from Locke to denote a *particularising property* – a particular type of thing (like cat or table), instantiations of which can be *counted* (unlike *mass properties*, which apply to *stuff* rather than *individuals*).

out the same lump; but, in W_0 , Goliath = Lump1 whereas in W^1 , Goliath \neq Lump1.

- In general, the reference α of X in W (a possible world which branches from W_0 after X comes into existence) is that thing which has the same history as X before the branch from W_0 and which satisfies the persistence criteria²⁴ satisfied by X in W_0 .
- Gibbard therefore thinks that the reference of a name in W depends on:-
 - a) The *reference* in the actual world (which determines the *beginning* of the thing denoted in W), and ...
 - b) The *persistence criteria* invoked (which enables us to *choose* between the various things initially selected by (a)).
- Gibbard is inclined to deny that there's any reference to concrete entities X in possible worlds W which either (1) don't branch from W_0 or (2) which branch too early (ie. before X begins)²⁵.

How does a name acquire its reference in the actual world?

- Gibbard now returns to the first of his two questions (how a name gets its reference in the actual world). He is impressed by Kripke's account, which he considers consistent with his own.
- According to Kripke, there's a causal chain from the thing denoted to the speaker, the strongest link being the initial one between the thing and the person who first perceived and named it.
- Gibbard thinks that persistence criteria play an important role in naming a thing, in that they define in what respect the thing ostensively named is named (say, as a statue or a lump).
- This disambiguates the situation, in that there might be many things pointed to that might be denoted by the name (eg. a *portion* of clay which, unlike the *piece* of clay, would survive the destruction of the piece of clay²⁶).
- On Gibbard's theory, it's clear why Goliath = Lump1 is contingent, and also why Hesperus = Phosphorus is necessary.
- The latter is the case because both Hesperus and Phosphorus are denoted qua-planets in worlds (where they refer at all) that branch after Venus begins to exist. Hence, "Hesperus = Phosphorus" is a necessary identity, because it holds in any possible world in which Hesperus and Phosphorus exist²⁷.
- Gibbard summarises his theory of proper names (on the assumption that Goliath = Lump1):-
 1. The reference of a thing in the actual world is determined in part by the persistence criteria which determine the thing named.
 2. The name is passed on by a tradition whose origin fixes the reference.
 3. This name can also be used to refer to objects in possible worlds that branch from the actual world after the thing named begins to exist.

²⁴ Gibbard introduces "the set C" of persistence criteria, but this doesn't seem to be important.

²⁵ I've no idea why he's troubled by the non-branching world (1). As for (2), it denies us the possibility of the counterfactual "if Goliath hadn't been sculpted, it would have remained a lump of clay".

²⁶ Ie. we might be naming the clay qua-portion, rather than qua-piece. So, the situation isn't quite as complex as Quine's "gavagai" situation; though even in Gibbard's example, the portion isn't identical to the piece, since it starts differently.

²⁷ Presumably this is true by the transitivity of identity (which Locke's account of identity fails) – ie. "Hesperus = Venus" and "Venus = Phosphorus", so "Hesperus = Phosphorus".

4. For this identification to give uniqueness, we need two conditions to be satisfied by the thing to be identified in the possible world:-
 - a) It shares the same persistence criteria as the thing named in the actual world.
 - b) It has early existence exactly like the name's bearer in the actual world.

Section IV (Possible Objections)

- Gibbard now considers arguments in favour of Kripke's theory that might be seen to count against his own.
- Firstly, since Gibbard claims that identity across possible worlds makes no sense in the absence of a sortal, then neither does rigid designation.
- Kripke denies this, in that he thinks qualms about rigid designators are unfounded, but Gibbard thinks he tacitly acknowledges the qua-sortal caveat.
- For example, "Nixon" is a rigid designator because it designates the same *man* (not just *thing*) in all possible worlds in which Nixon exists²⁸.
- So, "Nixon" is a rigid designator only with respect to the sortal *man*. Kripke hasn't shown that Nixon couldn't have been a different *entity* from what he in fact was. But, we think only in terms of the same person²⁹.
- Kripke thinks we might also have qualms about cross-world identification if we are confused about what possible worlds are. They are not like distant planets in which people look like other people on our planet, so that we have to see whether this person was the same one or just resembled him. However, correctly understood, possible worlds are "counterfactual situations" in which we stipulate identity rather than discover it.
- How does this apply to Gibbard's clay statue? In W^1 he has stipulated that Lump1 is brought into existence as Goliath (since both start at the same time, etc.), but Goliath is squeezed into a ball. This situation is fully stipulated and, according to Gibbard, there are two things stipulated – the statue and the lump of clay. So, Gibbard asks, which of these two things is the one thing that in the real world he made and broke³⁰?
- Gibbard thinks Kripke has a problem with the transworld identification of tables if they are viewed as collections of other particulars (molecules) rather than qualities. If something odd happens to the molecules of a table, we might have difficulty deciding if it's the same table (even though it is a table). However, his quotations from Kripke are too opaque and decontextualised to evaluate.
- What Gibbard does say about this situation is that it has no bearing on the case in point. Even if the molecules in Lump1 are clearly identified, there are still two things in W^1 – Goliath, which is destroyed by squeezing, and Lump1, which survives the squeeze, and the question of identifying one of these with the one thing, Goliath, that was broken in W_0 remains. Hence, there remains a genuine problem of transworld identification³¹.

²⁸ Note: Scott Sturgeon's comment that Kripke ought to say "at all possible worlds" rather than "in all possible worlds", because *in* a world, Nixon might be *called* "Fluffy" and yet still *be* Nixon.

²⁹ Gibbard says something confusing about our everyday *intuitions* being neither here nor there – what we need is a *system*, or something like that.

³⁰ This question arises because, for Gibbard, in W_0 , Goliath = Lump1 whereas in W^1 , Goliath \neq Lump1.

³¹ Is this a problem for Kripke, Gibbard or both?

Section V (Leibniz's Law)

- Gibbard now comes to what he considers the most prominent objection to his account of the reference of proper names and the consequent thesis of contingent identity. This is the failure of Leibniz's law. He thinks he has an answer to this problem, but only at a considerable cost, as we will see. He also has an answer to the cost, but we won't see that as it's too technical.
- **Leibniz's law** states that in the case of identity, $x = y$, x and y share all their properties and relations to other things.
- This is the inspiration behind the objection that arises from the following argument:
 1. $\Box(\text{Lump1 exists} \rightarrow \text{Lump1} = \text{Lump1})$ ³²
 2. Goliath = Lump1 (contingently, ex hypothesi, in W_0).
Therefore, by substitutivity of identicals, ...
 3. $\Box(\text{Lump1 exists} \rightarrow \text{Goliath} = \text{Lump1})$
- However, (3) is false according to Gibbard, as he takes the identity "Goliath = Lump1" to be contingent (true in W_0 but false in W^1).
- Gibbard points out that, taken as a law of the substitutivity of identicals, Leibniz's law is just false³³.
- Gibbard claims that Leibniz's Law applies to this context only if a *property* is attributed by:-

$$\Box(\text{Lump1 exists} \rightarrow \text{_____} = \text{Lump1}) \dots (4)$$
- Gibbard thinks that whether (4)³⁴ attributes a property is just the point at issue, since properties apply to things irrespective of the way they are designated (which is what we're talking about here – Gibbard is maintaining that if we replace the blank by Lump1 we get a truth, but we get a falsehood if we replace it by Goliath).
- Gibbard thinks we're in the familiar territory of Quine's paper *Reference and Modality*³⁵. Quine claims that (a) modal expressions don't give properties of concrete things such as statues or pieces of clay and (b) that modal expressions don't apply to concrete things independently of the way they are identified.
- Gibbard unpacks this as follows. Lump1 is the same thing as Goliath, but necessary identity to Goliath isn't a property that this thing has or lacks. This is because it makes no sense to ask whether that thing *as such* is necessarily identical to Lump1. Hence, Gibbard has an answer to the objection from Leibniz's law because modal contexts don't attribute properties or relations to concrete things.
- However, this answer comes at a price that some may consider too high. *Quantificational* contexts must attribute properties or relations to things that are true or false of them irrespective of how those things are designated. Hence, if modal contexts don't attribute properties or relations to concrete things, it's not

³² It is necessarily the case that if Lump1 exists it is self-identical.

³³ *Intensional* contexts are those in which the law of substitutivity of identicals fails (eg. Beliefs: "X believes that Hesperus is Hesperus" is true of any rational person X, but "X believes that Hesperus is Phosphorus" may be false of a rational but ignorant person), or that fail the test of existential generalisation (ie. that the objects of beliefs may not exist, not relevant here).

³⁴ (4) presumably means "necessarily being identical with Lump1 in any world in which Lump1 exists"?

³⁵ This seems to be little more than an argument from authority (or guilt by evil association, more likely), since the position assigned to Quine appears to be identical to Gibbard's, without any elaboration.

possible to quantify in modal contexts where the variables include concrete things. Some quantified formulae will turn out to be ill-formed merely on account of the range of their quantifying variables.

- Gibbard gives examples:

$$\diamond (\text{Lump1 exists and Goliath} \neq \text{Lump1}) \dots (5)$$

is said to be well-formed, but ...

$$\diamond (\text{Lump1 exists and } x \neq \text{Lump1}) \dots (6)$$

is said to be ill-formed if x can include Goliath³⁶.

- To understand this, Gibbard asks us to consider the statue he made and broke (but could have squeezed into a ball, though didn't). Then (6) is true of that thing qua *statue*, but not of it qua *clay*. Consequently, the free variable x doesn't belong to the context of (6) if it can take concrete things amongst its values.
- This gives power to the objection to contingent identity. We will be unable (it is said) to say many of the things we need to say in science and daily life if we have to restrict quantification in this way. Concrete things will have no modal properties – indeed, there will be no *de re* modality³⁷ at all for concrete things.

Remainder of Paper

- Gibbard spends the rest of the paper showing to his satisfaction that our tongues are not tied in this way, and that we can say anything meaningful we want. He will adapt devices proposed by Carnap in *Meaning and Necessity*. There is still a price to pay, however, in that Carnap adopts a non-standard account of the way predicates and variables behave in modal contexts (in a similar way to Gibbard's non-standard account of proper names).
- On Carnap's account, variables in modal contexts shift their range of values. So, in the formula:-

$$\diamond (\text{Lump1 exists and } x \neq \text{Lump1})$$

x doesn't range over concrete things, but over "individual concepts"; so, over statue-concepts, rather than statues. This is similar to Frege's treatment of proper names, which in modal contexts refer *obliquely*, not to (say) statues but to statue-concepts.

- An *individual-concept* is a function from possible worlds to individuals, which respectively exist in each of these worlds.

³⁶ (5) is OK because the sort of variable is fixed (it's a statue) whereas in (6) it isn't.

³⁷ "De re" means "concerning a thing", as distinct from "de dicto", which means (approximately) "concerning a proposition". An example of belief de re / de dicto from the *Routledge Encyclopaedia of Philosophy*: "John believes his next-door neighbour is a Buddhist". This is ambiguous. John may not know who his neighbour is but believes whoever lives next door is bound to be a Buddhist. This is a de dicto belief and is not about a particular individual. However, he may meet his neighbour at a party and deduce from the conversation that he's a Buddhist, without knowing that he is his neighbour. This is de re belief, as it's about an individual. An example from Tim Crane is the re dicto "Oedipus wanted to marry his mother", which Oedipus would deny, as against the de re "Oedipus wanted to marry Jocasta", which he would accept.

That said, I'm not too sure what Gibbard means when he says "there will be no *de re* modality at all for concrete things".

APPENDIX – Questions (set by Guy Longworth)

Q1. What claim does Gibbard attempt to argue for in the paper?

- Gibbard’s claim is that Kripke, while having advanced the question of contingent identity by disentangling it from epistemological concerns, hasn’t shown that there can’t be such cases. Gibbard produces an example (a statue).
- As a result, Kripke’s account of proper names as rigid designators needs supplementing. Gibbard thinks it doesn’t make sense to say that a name refers to the same thing in all possible worlds, but only to the same X-thing, where X is a sortal which states the kind of thing it is and is defined in terms of the persistence criteria of that type of thing.

Q2. What is Gibbard’s argument for the claim that Lump1 and Goliath are contingently identical? Does the conclusion seem plausible?

- Gibbard’s argument proceeds along the following lines.
 1. Careful definition of lumps and statues involving persistence criteria.
 2. Consideration of what would count as identity between the two.
 3. Construction of a special case in which the two are identical (Lump1 = Goliath).
 4. Consideration of a possible world in which the same two (according to Gibbard’s definitions) are not identical.
 5. QED.
- Issues include:
 1. Defining things as time-segments
 2. Insufficient notice of radical change still allowing continuance of identity.
 3. Synchronic versus diachronic identity
 4. Identity of artefacts with their constituents, shape and events irrespective of ascription to them by people.

Q3. In order for Gibbard’s argument to run, he needs it to follow from the fact that Goliath and Lump1 “run in step” in the actual world that they are actually identical. How does Gibbard argue for this? (See Section II).

- In both Sections I & II he claims initial plausibility because:
 1. The piece and statue started and ended their existence at the same time as one another.
 2. They shared the same properties.
 3. They took part in the same events.
 He also asks - if the statue is in some sense something over and above a piece of clay of a certain shape, what is it?
- In Section II he tries to provide a systematic account of the place in the physical world of concrete things (such as lumps of clay and statues). This may be OK for lumps, but it seems to miss out the role of artefacts as intentional objects, which is what makes them what they are (ie. over and above what they are physically constituted of).

Q4. In section III, Gibbard argues that if Kripke is right about the functioning of proper names, Gibbard is wrong about contingent identity. What is his argument?

- According to Kripke, proper names are used to talk of both actual and possible worlds, and are rigid designators. That is, if they denote anything at all in a possible world, they denote the same thing as they denote in the actual world.
- Gibbard now considers the actual world (W_0), in which Goliath isn't squeezed, and a possible world (W^1) in which it is. Then the consequence of Gibbard's argument is that:
 - i. In W_0 , Goliath = Lump1, while ...
 - ii. In W^1 , Goliath \neq Lump1.

However, if "Goliath" is a rigid designator, this is a contradiction. This is because a rigid designator denotes the same thing in all possible worlds, and since both Goliath and Lump1 exist in W^1 they must denote the same thing in W^1 (given that they denote the same thing in W_0). Hence (ii) must be false if "Goliath" is a rigid designator.

Q5. What account of the functioning of proper names does Gibbard think is compatible with his views on contingent identity?

- Gibbard summarises his theory of proper names (on the assumption that Goliath = Lump1) as follows:-
 1. The reference of a thing in the actual world is determined in part by the persistence criteria which determine the thing named.
 2. The name is passed on by a tradition whose origin fixes the reference.
 3. This name can also be used to refer to objects in possible worlds that branch from the actual world after the thing named begins to exist.
 4. For this identification to give uniqueness, we need two conditions to be satisfied by the thing to be identified in the possible world:-
 - a) It shares the same persistence criteria as the thing named in the actual world.
 - b) It has early existence exactly like the name's bearer in the actual world.