

Essence as a Social Property

Laurel Goldstein

A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Philosophy.

Chapel Hill
2007

Approved by:

Jan Boxill

John Roberts

Keith Simmons

© 2007
Laurel Goldstein
ALL RIGHTS RESERVED

ABSTRACT

Laurel Goldstein: Essence as a Social Property
(Under the direction of Jan Boxill)

In this thesis, I attempt to provide a characterisation of the kind *woman*, by determining what the essential property of the kind is (or whether there even is one), and with what kind of necessity it attaches to the kind members. I begin by outlining different ways essential properties have been approached in the current philosophical literature. A common feature of these views is that they focus on physical structure as essential to kinds and kind members. But, I argue, the kind *woman* cannot be so defined. Instead, the essential property of the kind *woman* should be given in terms of a social (or at least a non-biological) property.

ACKNOWLEDGMENTS

Thanks to Keith Simmons for his direction and motivation, without which I never would have begun writing, and for all the discussion and comments along the way. Thanks also to John Roberts and Jan Boxill for their feedback.

And a big thank you to Jamin “Rockstar” Asay, for formatting this thesis for me, and, as self-appointed honorary DGS, reminding me to file the paperwork on time.

TABLE OF CONTENTS

Section	Page
1. Introduction.....	1
2. The Essence of Essence	3
2.1. Underlying Physical Structure: Kripke (and Putnam ₁).....	3
2.2. Superficial Structure: Putnam ₂	7
2.3. Lawlike Behaviour: Putnam ₃	8
2.4. Sortal Concepts and Necessary Conditions: Hale.....	14
2.5. Summary	20
3. An Attempt at Biological Essence	22
3.1. Are Women Just XX?	22
3.2. Are Females Just XX?	25
4. An Attempt at Social Essence.....	34
4.1. Objections to This Kind of Account	40
4.2. Summary	44
5. Conclusion	46
Works Cited	48

1. Introduction

Many authors make claims about women, the condition of women, and what changes should be effected for the benefit of women. This immediately raises the question, to whom are these claims intended to apply? It seems that an understanding of what women are (and not just who women are) is crucial to understanding what such claims are about. In this paper, I discuss various ways to characterise the kind *woman* – what kind of kind it might be, which property is essential to it, and with what kind of necessity this property attaches to members of the kind.

In the Section 2, I outline different ways to approach kind membership and essence. I discuss whether essence is best conceived of as underlying structure, whether essence can be identified with one property, and whether such a property constitutes necessary and sufficient conditions for kind membership. I then review some difficulties that arise for such accounts of essence. By way of response to some of these problems, I discuss an account where kind membership is constrained both by essential properties and sortal concepts.

In the Section 3, I consider whether the kind *woman* can be understood in terms of underlying physical structure; that is, whether women just are females. I argue that regardless of which view of kinds we adopt, women should not be characterised in terms of underlying physical structure, and so *woman* and *female* form two distinct kinds.

Finally, because women cannot be characterised according to their underlying physical structure, in Section 4 I consider whether the essential property for membership in the kind *woman* might be given by a social property. I conclude in Section 5 by returning to

the questions raised above and how understanding of the kind *woman* bears on these questions. I also consider where such an essence locates the kind *woman* more generally in theories of kinds.

2. The Essence of Essence

2.1. Underlying Physical Structure: Kripke (and Putnam₁)

One way to understand essence and kind membership is in terms of underlying physical structure. This is the approach of both Kripke and (an early incarnation of) Putnam. According to Kripke and Putnam, members of a natural kind share properties in two different ways. The first is by exhibiting what Kripke calls the same “identifying marks” (1980: 118). These identifying marks serve to provide a means of recognising what might constitute a kind. For example, the identifying marks for water might be colourless, odourless liquid. Having settled on the identifying marks, we can now give an operational definition for what it is to be, e.g. water.

The operational definition...is simply a way of pointing out a standard – pointing out the stuff in the actual world such that for x to be water, in any world, is for x to bear the relation same_L to the normal members of the class of local entities that satisfy the operational definition. (Putnam 1975: 232).

An operational definition based on identifying marks provides a means of identifying what might be water, based on surface level, observable qualities. At the level of identifying marks, the operational definition allows us to stipulate that in order for something to be water, it must stand in the same_L relation to the stuff that actually has the identifying marks of (i.e. looks like) water (whatever the stuff that has those identifying marks actually turns out to be). Identifying marks allow us to say what kind of stuff water must be identical to, but it does not allow us to make a claim about the content of the same_L relation. At the level of identifying marks, whatever the essence of water is, it is the thing in virtue of which other

liquids stand in the relation same_L to the colourless, odourless liquid in the actual world. But what makes other liquids stand in this relation to the colourless, odourless liquid cannot necessarily be given in terms of identifying marks alone.

According to Kripke and Putnam, standing in the relation same_L to water is not simply a matter of exhibiting the same identifying marks but also involves underlying structure. The reason for this is that the relation same_L is defined in terms of underlying physical properties: “ x bears the relation same_L to y just in case (1) x and y are both liquids, and (2) x and y agree in important physical properties,” (Putnam 238-239). While acknowledging that “importance is an interest-relative notion” (Putnam 239) and therefore, that the underlying physical properties need not be the ones that characterise the relation, Putnam also claims that “the ‘important’ properties of a liquid or solid, etc., are the ones that are *structurally* important: the ones that specify what the liquid or solid, etc., is actually made out of...and how they are arranged or combined to produce the superficial characteristics,” (Putnam 239).

The importance of underlying structure to kind membership is illustrated by Putnam’s Twin Earth examples. Although water and Twin Earth water are both colourless, odourless liquids that quench thirst and are found in rivers and oceans, (i.e. they exhibit the same identifying marks) they do not share an underlying structure: water is H_2O , and Twin Earth water is XYZ. So even though H_2O and XYZ share identifying marks, because XYZ is not the same underlying physical structure as H_2O , water on Twin Earth does not stand in the relation same_L to water on Earth. Because water is identified by what stands in the relation same_L to the colourless, odourless stuff on Earth, and that stuff on Earth is H_2O and not XYZ, Twin Earth water is not *really* water. The reason identifying marks provide an

operational definition rather than the essence is that based on identifying marks alone, water and Twin Earth water would be members of the same kind, but because they have different underlying structures, they are not. Twin Earth water satisfies the operational definition for water, but does not stand in the same_L relation to water because it does not have the appropriate underlying physical structure. So it is not water.

Because both Kripke and Putnam identify the underlying physical properties as the properties relevant to determining essence and, consequently, kind membership, the relation same_L (which determines sameness of kind) is defined by structural properties. “If there is a hidden structure, then generally it determines what it is to be a member of the natural kind,” (Putnam 241). While identifying marks provide a way to identify which stuff we might investigate to see if it has the underlying structure, the important way to share properties, and the way to get membership in a kind, is by sharing underlying structural properties – having the same thing be responsible for the appearance of the identifying marks.

But underlying properties do more than simply sort things into one kind or another. Kripke and Putnam claim that underlying physical properties are the essence of the kind. Because the underlying physical structure is essential to the kind, underlying physical structure characterises the kind, “not only in the actual world, but in all possible worlds,” (Putnam 241). Whatever the underlying structure is determines the property that identifies something as a member of that kind in every possible world. Underlying structure as essence means, for example, that because water is H₂O, there could not be water that does not have that same underlying structure (and further, *it could not have been* that water does not have that structure).

When we say that it could have *turned out* that water had no hidden structure what we mean is that a liquid with no hidden structure (i.e. many bits of different liquids, with

nothing in common *except* superficial characteristics) could have looked like water, tasted like water, and have filled the lakes, etc., that are actually full of water. (Putnam 241).

Since water has an underlying structure which is responsible for the identifying marks water exhibits, in order for anything to be water, it must also have that structure. When we make possibility claims about what water might have been (i.e. when we say that water *might not have been H₂O*), these are claims about epistemic, not metaphysical possibility. We might have *discovered* that water has no interesting underlying physical structure, or that its structure is XYZ. But given that water has a certain underlying structure which provides the essence of what it is to be water, it could not be that water has no underlying structure or a different underlying structure. It could be/have been that something else is what produces the identifying marks associated with water, but given that the source of these marks is H₂O, nothing other than H₂O could have been water. Even if some liquid were to exhibit the same identifying marks and fill the same functional role as water, however waterlike that other stuff appeared, it still would not be water (although it still seems plausible to say that it might_{EPISTEMIC} have been water).

Because of this (supposed) link between essence and underlying structure, Kripke claims that “statements representing scientific discoveries about what this stuff *is* are not contingent truths but necessary truths in the strictest possible sense,” (Kripke 125). The reason for this is that once science has given us the (correct) underlying structure of some substance (i.e. a kind), anything that really is a member of that kind must have a certain structure.

Kripke and Putnam₁ provide an account of kinds that relies on underlying physical structure. Because underlying physical structure determines kind membership, the structure

can identify the kind in other possible worlds, and so provides the essential property of the kind.

2.2. Superficial Structure: Putnam₂

Although we may prefer to characterise essential properties in terms of underlying structure, it could turn out that in some cases, essence depends on superficial characteristics. Putnam considers such a scenario, where essential properties of kinds are still physical properties, but superficial, rather than underlying.

It could have turned out that the bits of liquid we call 'water' had *no* important common physical characteristics *except* the superficial ones. In that case the necessary and sufficient condition for being 'water' would have been possession of sufficiently many of the superficial characteristics. (Putnam 241).

This account of kinds and what kind membership consists in is similar to the one discussed immediately above in that it appeals to physical structure – but importantly, it differs in *where* in the structure the essence is located. This account allows for kinds (and essences) even if there is no underlying structure that is importantly or interestingly involved in producing the identifying marks. Were there no such underlying properties, Putnam contends that physical properties could still be the essential properties of kinds. It might have been that there was a colourless odourless liquid that fills rivers and oceans (i.e. something with the same identifying marks as water and function as water) that had no underlying structure – of course it is impossible that such a liquid be water – but had this liquid been water, then standing in the same_L relation to water would not be a matter of sharing an underlying structure, but sufficiently many surface characteristics.

This account of kinds allows the essence to be a superficial property or identifying mark, rather than underlying structure. It seems, however, that this approach is only appealed

to when underlying structure fails for some reason or other. Essence by underlying structure seems to be the preferred way of accounting for kind membership.

2.3. Lawlike Behaviour: Putnam₃

Although Putnam initially defends the view that physical properties provide the essence of kinds, he later argues that physical properties alone cannot establish membership in a kind. In his paper, “Is Water Necessarily H₂O” (1990), he argues that the possession of physical properties, whether underlying or superficial, does not guarantee membership in a kind. On these accounts locating a kind’s essence must also guarantee locating the kind, but, Putnam argues, a physical property might not always indicate the kind, and so cannot constitute its essence.

For example, as far as the previous two ways for accounting for essences are concerned, anything with the underlying structure H₂O is water and all water is H₂O; or where superficial characteristics are used to identify kinds, anything that is, e.g. a colourless, odourless liquid is water, and water is anything that is a colourless, odourless liquid. The property or properties that constitute the essence are both necessary and sufficient for determining membership in a kind.

But, Putnam argues, the underlying physical structure (or cluster of superficial properties) is not, and cannot be, necessary and sufficient for identifying a kind. The reason for this is that using physical structure as a means of identifying substances across possible worlds is only successful when those worlds obey the same physical laws as the actual world. “I do not think that a criterion of substance-identity that handles Twin Earth cases will extend handily to ‘possible worlds.’ In particular, what if a hypothetical ‘world’ *obeys different laws?*” (Putnam 1990: 69). Putnam worries that a world similar to Earth in many respects

could obey different physical laws. In such a world, there may be a compound H_2O , but because the laws are different, it may be that this compound neither behaves similarly to, nor shares (sufficiently many) identifying marks with water. In such a deviant-law world, these behavioural/superficial differences might affect whether we would even consider H_2O to be water. That is, Putnam doubts whether “it [is] clear that we would call a (hypothetical) substance with quite different behavior *water* in these circumstances,” (Putnam70).

In the situation Putnam imagines, the underlying structure of a kind is present, but the kind water (arguably, or at least intuitively) is not. He takes this as evidence that underlying structure alone cannot provide the essence of kinds. If it could, then the presence of the underlying structure would always guarantee presence of kind, and vice versa. But in the world Putnam imagines, the underlying structure may be present without the kind; so there is no guarantee that discovering H_2O (i.e. something standing in the same_L relation to water) is really water (or something we would count as water). Because of this, the essential property of a kind cannot simply be identified with the kind itself. This scenario leads Putnam to reject underlying physical properties, in and of themselves, as the essences of kinds, and consequently, to reject metaphysical necessity. He does this because if the underlying property or structure cannot be used to identify the kind without e.g. also fixing the physical laws, then the necessity is not really metaphysical (i.e. does not hold in all possible worlds) but physical (i.e. holds only in those worlds with the same laws as the actual world).

Putnam’s rejection of metaphysical necessity because underlying physical structure is not necessary and sufficient for identifying a kind might be somewhat premature, however. His argument so far does not show that there are no necessary and sufficient conditions for identifying kinds, just that underlying physical structure does not provide these conditions –

if underlying structure is to be necessary and sufficient, the possible worlds which we are considering must be restricted to the ones that have the same physical laws. But Putnam does not even consider that other kinds of properties, such as the superficial characteristics to which he refers earlier, might constitute essences, and therefore ground metaphysical necessity.

If the superficial characteristics can provide the essence of a kind, then there is no worry that different laws might affect what would be identified as its members – the essence of e.g. water would just be colourless odourless liquid, so the kind *water* would just be whatever the colourless, odourless liquid was. “One might hold that ‘water’ was *world-relative* but *constant* in meaning (i.e. the word has a *constant relative meaning*). In this theory, ‘water’ *means the same* in W1 and W2; it’s just that water is H₂O in W1 and water is XYZ in W2” (Putnam 1975: 231). This way of fixing the meaning of ‘water’ gives primacy to the primary intension of the term. The primary intension of a term, e.g. ‘water’ is given by a qualitative description of what the term picks out, and (usually) refers to a superficial property. “The primary intension of a token of ‘water’, very roughly, picks out the clear, drinkable liquid with which the individual...is acquainted,” (Chalmers 2006: 586). So if ‘water’ means the same thing in W1 as it does in W2, and meaning (in some way) determines reference, then meaning also provides the criterion for determining what ‘water’ refers to (i.e. what water is). If the meaning with which we are concerned is the meaning given by the primary intension of ‘water’, and the primary intension is constant across worlds (i.e. ‘water’ just means ‘clear drinkable stuff’), then ‘water’ is a rigid designator, which “in every possible world...designates the same object,” (Kripke 48). A rigid designator picks out the same thing in all possible worlds (where it exists), where “the same thing” is determined by what the

essence of the thing is in the actual world. And because the essence of a kind is fixed by the actual world, it matters for purposes of cross-world identification whether the essence is conceived of in terms of superficial characteristics (i.e. given by the primary intension) or by underlying structure. If the latter, then the criterion for being, e.g. water, is given not by the primary intension, but by the secondary intension.

The secondary intension of a term is given by non-superficial underlying properties, e.g. H_2O . If the secondary intension of a term is what determines its referent, then it refers to that underlying structure in any possible world, regardless of what superficial characteristics it produces. "An expression's secondary intension...is just its familiar post-Kripkean intension, picking out the extension of the expression in counterfactual worlds....The secondary intension of 'water' picks out H_2O in all worlds," (Chalmers 586). If the essence of water is given by the secondary intension for 'water', i.e. if the essence of water is H_2O , then 'water' rigidly designates H_2O .

But on the suggestion that superficial characteristics (and not underlying structure) constitute the essence of water, the essence just is being a colourless, odourless liquid. When the primary intension of a term determines the essence of the kind, the secondary intension may vary from world to world. This approach to essence and kind membership, where superficial characteristics provide the necessary and sufficient conditions, avoids the difficulty Putnam raises for kinds based on underlying structure. If 'water' refers to a certain set of superficial characteristics and these fix the meaning of 'water', then what water *is* (i.e. its essence) will not be affected by different physical laws.

Although this approach to essence and kinds avoids the problem Putnam raises for underlying structure as metaphysically necessary, it is subject to a different criticism. Using

superficial characteristics to identify kinds requires two different criteria for kind membership: one within a world, and another across worlds. The reason for this is that although identifying kinds by superficial characteristics might be successful for cross-world kind identifications, it is not how we classify kinds in the actual world.

In the actual world, kinds are identified not solely by their superficial characteristics, but also by their underlying structure. For example, both water and vodka are colourless liquids, but this superficial similarity is not enough to group them as a kind. In fact, we consider them to be different kinds because they have different underlying physical structures. (It might be argued that even on the basis of superficial characteristics water and vodka do not constitute a kind because vodka is not odourless, and it is not found in rivers and oceans, etc. that is, they do not share sufficiently many characteristics to plausibly be considered a kind anyway. I am ignoring these differences for the purposes of this example. If it really is *that* problematic, consider gold and fool's gold, which resemble each other in very many superficial respects, and are distinguished by their underlying physical structure).

There are also cases where we want to say that two substances are of the same kind, but they do not really bear much superficial resemblance to one another. For example, chemically pure water and water from the Willamette River may not superficially resemble one another in any respect except by being liquid. But because both substances share an underlying structure, we say they are members of the same kind. We do not consider substances to be of the same kind just because they resemble one another; nor does lack of superficial resemblance prevent substances from being of the same kind.

So if superficial characteristics are the essence of kinds, then it seems that we would be using a different criterion to identify kinds in other possible worlds than in the actual

world. If superficial characteristics are going to provide essence and consequently determine kind membership in other possible worlds, then this should be the criterion employed in the actual world as well. The problem is that this is not how we identify kinds in the actual world, we identify them by underlying structure. But underlying structure (for the reasons Putnam gives) cannot provide necessary and sufficient conditions for kinds across possible worlds. In order to get essence in the actual world, we appeal to underlying structure; but in order to get essence in possible worlds, it seems we must appeal to superficial characteristics. It seems problematic and highly undesirable if 1) there is not a unified account of what constitutes the essence of kinds; and 2) the cross-world notion is not the one we actually employ, since kind membership (i.e. essence) is supposedly determined by what is actual. So a notion of essence that differs from our actual notion of essence cannot be used to identify kinds across possible worlds.

In this section, I explained why Putnam separates essence from underlying physical structure. He argues that essence cannot just be a single underlying physical property, because underlying physical structure might only be essential when other features of the worlds, e.g. its physical laws, are fixed. So if there is any kind of necessity to being a member of a kind, it is at most physical necessity (since necessity is determined relative to physical laws) and not metaphysical necessity (it cannot be given by a property alone – any kind of property). Putnam dispenses with metaphysical necessity because he takes himself to show that no property is both necessary and sufficient for kind membership. Underlying properties can only be essential relative to physical laws; superficial properties, if essential, require us to adopt one notion of essence for the actual world (underlying structure) and another for possible worlds (superficial structure).

2.4. Sortal Concepts and Necessary Conditions: Hale

Yet another way of understanding kind membership and essence is advanced by Hale (2004). Hale, while sympathetic to Putnam's position that underlying physical structure may neither identify a kind nor constitute necessary and sufficient conditions for kind membership, argues that we need not conceive of metaphysical necessity in this way. Instead of appealing to necessary and sufficient conditions to provide the essential properties of kinds, he claims that the essence of a kind need only be a necessary condition.

The reason for this is that intuitively, in another possible world, we might wonder whether some colourless odourless liquid is water, but would probably not wonder whether some pink solid is water. That is, the question of whether something in another possible world is a member of a particular kind (and so whether it possesses a given property as an essential property) only arises for things in that world that bear a superficial resemblance to things in the actual world. That is, we only wonder whether something in another possible world is e.g. water if it falls under our sortal concept *water*. But neither satisfying a sortal concept nor exhibiting certain superficial characteristics by virtue of which the concept is satisfied should be understood as sufficient for kind membership. Instead, satisfying a sortal concept just is what it is to be an object.

[T]o be an object is, necessarily, to be an object of some specifiable kind—to fall under what is now widely called a sortal concept, that is, a concept with which is associated not only a criterion of application but also a principle of identification and distinction among its instances. (Hale 2004: 372-373).

While the content sortal concepts is determined by superficial characteristics (where content is understood as features something must possess in order to satisfy the sortal), because sortal satisfaction not sufficient for kind membership, Hale's account of kinds can accommodate Putnam's Twin Earth case. Water and Twin Earth water both satisfy the sortal

concept *water*. But because Twin Earth water is not H₂O, it is not a member of the kind *water*, so Hale can explain how two substances may bear a superficial resemblance to one another without requiring them to be the same kind. But appealing to sortals also allows him to explain why, in other possible worlds, we only consider something to be of the same kind as something in the actual world if it superficially resembles the thing in the actual world.

Satisfaction of a sortal concept (i.e. possessing certain superficial properties) is not a necessary condition for kind membership either, and does not constitute the essence of a kind. The essence of the kind is given by the necessary condition for kind membership, given in terms of underlying structure. In the case of water, the necessary condition is being H₂O. That is, a substance in another possible world that satisfies our sortal concept water but is not H₂O is not water.

Underlying physical properties are the essential properties of kinds, but these properties are only necessary and not sufficient for kind membership. This allows Hale to accommodate Putnam's argument against metaphysical necessity. Putnam's claim is that in some world H₂O might not bear any kind of superficial resemblance to H₂O in the actual world. Especially if part of being water is standing in the same_L relation to actual water, if this relation is given in terms of underlying physical structure, in worlds where all H₂O is some kind of pink solid, this pink solid certainly will not stand in the same_L relation to water (for one reason, because the pink solid is not a liquid).

But Hale's account of essence can rule out such counterexamples. In part, he does this by appealing to the sortal concepts. Simply locating the essential property for membership in a kind need not involve locating the kind (since we are only concerned with whether something in another possible world is of the same kind as something in this world if it

resembles the thing in this world). So, Hale claims, if kind membership is (initially) limited to what falls under the same sortal concept as kind members in the actual world, Putnam's deviant-law case does not show that there is no metaphysical necessity.

But now notice that what the case he [Putnam] envisages in support of this claim [that there are no necessary and sufficient conditions for kind identity] tells against (if it is good) is the *sufficiency* [of] the proposed criterion – that is, what is put in doubt is that being composed of H₂O molecules is sufficient for something's being water. It doesn't touch the question whether being composed of H₂O molecules is *necessary* for being water. (Hale 377).

A single property can still characterise a kind (i.e. metaphysical necessity is retained), regardless of whether other aspects of possible worlds (such as the laws) are fixed, because we need not identify everything with the essential property as a member of the kind (i.e. the essential property is not sufficient for kind membership). We need only identify something as a member of the kind if, in addition to having the essential property, it also satisfies some reasonable construal of our sortal concept. So metaphysical necessity, when constrained by sortal concepts in this way, does not entail the unintuitive result that anything whatsoever, if it is H₂O is water. Instead, Hale claims “just that water is necessarily H₂O, *not* that H₂O is necessarily water – that is, it can be a claim about the *composition* of water, *not* an *identity* claim,” (Hale 377). As such, that H₂O is the essential property of water is only a claim about the composition of something in another possible world that reasonably resembles water in the actual world.

It might seem that using sortal concepts to limit kind membership amounts to taking satisfaction of a sortal concept as a necessary condition for kind membership. But Hale's claim is not, if this is water then it both satisfies the sortal concept water and is H₂O. Satisfaction of the sortal concept *water* should not be understood as constitutive or criterial of what it is to be water; satisfaction of the sortal simply provides an explanation for why we

consider some things that are H₂O water, but why we do not consider everything that is H₂O water. That is, sortal concepts can explain why, in a deviant-law world, H₂O might not be water. If H₂O has very different superficial characteristics than it does in the actual world, then we would not count H₂O as water in that world. The reason for this is that the substance composed of H₂O in that world does not fall under our sortal concept *water*. This does not tell against the metaphysical necessity of water being H₂O, however. Water is still necessarily H₂O, even though the pink-H₂O solid is not water.

Not every sortal concept picks out a group of objects for which the necessary condition for membership is an essential property of the objects. In order for a necessary condition to count as an essence, the sortal concept must be what Hale identifies as a basic sortal concept.

Let us say that a sortal concept *F* is basic – a concept of a fundamental kind of object – if (i) if *F* applies to any object, it applies to that object throughout its existence, and (ii) given that an object is *F*, its ceasing to be *F* counts as that object's ceasing to be. (Hale 373).

A basic sortal is contrasted with phase sortals and role sortals. A phase sortal applies to an object for some part of its existence, but ceasing to fall under the sortal does not mean that it no longer exists or has undergone some change of identity, e.g. “*child, tadpole, and piglet*” (Hale 373). An object satisfies a role sortal by virtue of fulfilling a particular function, e.g. “*doorstop and bookmark*” (Hale 373). Necessary conditions for non-basic sortals are not essential properties. If not for this restriction, objects could gain and lose essences, but an essence is not the sort of thing that an object can gain and lose; it is supposed to have it as long as it exists. But since necessary conditions are essences only if they are necessary conditions for kinds picked out by basic sortals, essence is tied to existence in an intuitively desirable way. If an object is a member of a basic sortal kind, then it is a member of that kind

necessarily. If it stops falling under the sortal concept, it has gone out of existence, and if it stops satisfying the necessary condition, it is no longer a member of the kind, and so has undergone a change of identity (i.e. the object that satisfied the necessary condition no longer exists).

There is also a distinction to be drawn between the essential property of a kind (i.e. the necessary condition something must satisfy in order to be considered a member of the kind) and the essential property of the kind member (i.e. the property of a kind member that, if it loses, it goes out of existence). For example, ‘attends school regularly’ might be the essential property for membership in the kind *student*, but this does not mean that it is an essential property of anyone who is actually a student. The necessary condition is an essential property of the kind, but not necessarily an essential property of the kind members.

But someone might object to Hale’s account of essence on the grounds that the basic sortal concepts are not really basic. That is, if the necessary condition for membership in a kind is an essential property of the kind member only when the member falls under a basic sortal concept, then being a kind picked out by basic sortal concept (rather than a phase or role sortal) is very important to Hale’s account of essence. But even for basic sortals, e.g. *water*, there are features (superficial characteristics) in virtue of which a substance falls under the sortal concept. If so, then it seems that *water* might not be the basic sortal concept. Instead, the basic sortal concepts are the ones for the features in virtue of which a substance satisfies the sortal concept *water*, e.g. the sortals *colourless*, *odourless*, and *liquid*. Since this group of sortal concepts (or one like it) is the one that a substance must satisfy to be identified as water, it seems more accurate to take these as the basic sortal concepts, rather than the conglomerate complex of a sortal concept, *water*. That is, since *water* is not a

conceptually simple sortal, it should not be considered a basic sortal. If this is correct, then being member of the kind *water* is not a matter of continually falling under the sortal concept *water*, but under *water*'s constituent sortal concepts.

This is not a serious problem for Hale's account of basic sortal concepts, however. It seems that he can just concede that a basic sortal concept is a conglomerate of more basic (or simple) concepts, without revising the kind of work that the basic sortal concept is doing. He can allow that satisfying the constituent simple concepts just is satisfying the basic one, since what it is to satisfy the basic one *just is* to satisfy the simple ones. If the content of a basic sortal concept is defined by some group of simple sortal concepts,¹ then there is really no interesting difference as to whether the necessary condition attaches to kind picked out by the basic sortal concept *water* or to the kind picked out by the appropriate cluster of simple concepts. The reason for this is that presumably the content of a basic sortal (its constituent simple concepts) is determined by conceptual analysis. It might have been that the sortal concept *water* was satisfied by pink solids. If this had been the case, then falling under the sortal concept *water* would be a matter of satisfying the simple concepts *pink* and *solid*. Nothing importantly metaphysical really hangs on what, in fact, falls under a particular basic sortal concept; the way a basic sortal concept is specified or defined is not what determines whether a necessary condition is essential to the objects that fall under the sortal. Although we (initially) limit kind membership based on falling under a sortal concept (and so sort by a criterion based in conceptual analysis), the necessary condition (which is not fixed by conceptual analysis) is what does the real work of determining whether something is a

¹ E.g. continual satisfaction of the sortal concept *water* just is continual satisfaction of some simple sortals, such as *colourless*, *odourless*, and *liquid*.

member of a kind. Hale need not worry that basic sortal concepts are not conceptually basic, because ultimately the specifics of the analysis of these concepts are not what determines whether something is a member of a kind.

2.5. Summary

In this section, I have outlined four different ways to understand essence. The first is in terms of underlying physical structure; the second, by sharing certain superficial characteristics; the third by adhering to a certain set of physical laws (perhaps a special case of the first); and finally, by satisfying the necessary condition as determined by falling under a certain type of sortal concept.

Essence identified as underlying structure that is both necessary and sufficient conditions for membership in a kind is potentially problematic for the reason Putnam considers: given a sufficient degree of variation in physical laws, a substance can have an underlying physical structure without that being enough to qualify it as a member of a kind. Putnam takes this to be evidence against metaphysical necessity – that is, necessary properties of objects can only be fixed relative to physical laws, not by underlying structure alone. (Because essence in a class of worlds restricted by physical laws is still given in terms of underlying structure that is either identified with or necessary and sufficient for membership in a kind, Putnam's notion of essence here seems to be just a restricted version of Kripke's).

Hale then rejects the analysis of essence as underlying structure that is both necessary and sufficient for kind membership, and so rejects Putnam's argument against metaphysical necessity. He argues that essence can be characterised by an underlying property that is necessary, but not sufficient, for kind membership. He restricts which necessary conditions

count as essences by appealing to basic sortal concepts – in order to be an essential property of an object, the kind to which the object belongs (by virtue of possessing that property) must be a kind that is picked out by a basic sortal concept. Because Hale specifies what essence is without appeal to other features of the world, the necessary properties of kinds are metaphysically necessary properties of those kinds. Nor is metaphysical necessity just conceptual necessity. While what it is to fall under a sortal concept is given by conceptual analysis, falling under a sortal concept is not (and so conceptual analysis is not) what determines kind membership. Kind membership is determined by possession of the property provided by the necessary condition, which is discovered empirically.

3. An Attempt at Biological Essence

All this discussion of essence is for the purpose of determining how to best describe what women are. If there is a kind *woman*, then there is (at least) a necessary condition that must be satisfied in order to be a member of the kind (i.e. there is some essential property that attaches to the kind). It is a separate question whether in addition to this, the necessary condition for membership in the kind is an essential property of the kind members. In this section, I consider whether there is a necessary condition for membership in the kind *woman* and if there is, how it is best understood.

3.1. Are Women Just XX?

It might be that despite difficulties with the account outlined in Section 2, the most accurate way to describe the kind *woman* is along broadly Kripkean lines, as a kind distinguished by underlying biological structure, or chromosomes. On this approach, the underlying structure identifies the kind – it provides both necessary and sufficient conditions for kind membership, and in addition, is an essential property of the members. If this is how the kind *woman* is to be understood, then it seems that *woman* is just another name for the kind *female*. So part of determining what the essential property of the kind *woman* is, and whether it is an essential property of women, is determining whether there is nothing more to being a woman than being female.

Let *female* be a natural kind in the Kripkean sense – a kind whose essence is determined by an underlying physical structure – and let the underlying structure, which is both necessary and sufficient for kind membership, be (just) XX chromosomes. So if women

just are females, then women also form a natural kind. This kind is determined by the underlying physical structure, a structure which each member has as a matter of metaphysical necessity (that is, if women in fact have a certain underlying structure, then it couldn't have been otherwise – something that looks just like a woman but does not have that structure might have filled the role of a woman, but wouldn't really be a woman). If the kind *woman* can be characterised in terms of underlying structure XX, then the kind *woman* just is the kind *female*.

One reason that women just might be females is that women exhibit certain identifying marks, i.e. certain secondary sex characteristics, for which we take the chromosomal structure XX to be responsible. So if XX were the necessary condition for being a woman, then every member of the kind should be XX.

But XX chromosomes alone do not always suffice to classify someone correctly as a woman. There can be a mismatch between the identifying marks and underlying physical structure:

In contrast with the true hermaphrodites, the pseudo-hermaphrodites possess two gonads of the same kind along with the usual male (XY) or female (XX) chromosomal makeup. But their external genitalia and secondary sex characteristics do not match their chromosomes. Thus merms have testes and XY chromosomes, yet they also have a vagina and a clitoris, and at puberty they often develop breasts. They do not menstruate, however. Fems have ovaries, two X chromosomes and sometimes a uterus, but they also have at least partly masculine external genitalia. Without medical intervention they can develop beards, deep voices and adult-size penises.

No classification scheme could more than suggest the variety of sexual anatomy encountered in clinical practice. (Fausto-Sterling 1993: 22).

The identifying marks characteristic of women can have two different underlying structures, XX and XY. This in and of itself need not be problematic for characterising women, since just as gold and fool's gold exhibit the same identifying marks but have

different underlying structures, so might there be two different types of women: women (identical with females, and so XX) and “fool’s women” (not identical with females). If this were the case then the explanation of the relation of the kind *female* to *woman*, as with *gold* and *fool’s gold*, would simply be that identifying marks can be misleading and the true kinds (and their members) are revealed by underlying structure.

What really creates the problem for identifying the kind *woman* with *female* is that XX chromosomes, which I am taking to be the essential property of females, gives rise to two completely different sets of identifying marks. XX chromosomes produce two sets of secondary sex characteristics (admittedly, one with far greater frequency than the other, but the non-standard cases cannot simply be discounted), one which typifies women, the other, men. As such, there does not seem to be a straightforward relationship or correspondence between the underlying structure associated with females and the set of identifying marks associated with women. If XX really is what is responsible for the appearance of the identifying marks associated with women, then it should not also give rise to the (supposedly) complementary identifying marks associated with men (and a different underlying structure, XY). One reason for taking the underlying structure as the essential property of the kind and kind members is that it seems to explain why the surface characteristics are the way they are. But in the case of *female* and *woman*, the underlying structure does not always explain the surface characteristics; so the kinds *female* and *woman* are not identical.

Additionally, it seems that the kinds *woman* and *female* should not be identified with one another because of the worries Putnam raises in Section 2.3. Just as the underlying structure H₂O might not give rise to anything recognisably water, the underlying structure

XX might not give rise to anything recognisable as a woman (not just in some cases as actually occurs, but in most or all cases). Putnam's claim in the case of women might be that no property is metaphysically necessary (i.e. essential) for membership in the kind *woman* (because this property does not characterise women unless certain physical laws are also fixed, so the property is only *physically* necessary). Alternatively, perhaps this extension of Putnam's worry simply shows that there is some property that could constitute the metaphysical essence of *woman* and its members, but that the best way to capture this property might not be in terms of underlying physical structure.

Because there is no (guaranteed) one-to-one mapping between underlying structure and identifying marks, if the kind *female* is identified with the underlying structure XX, and the kind *woman* is characterised by a set of secondary sex characteristics, then the kind *woman* cannot simply be identical to the kind *female*. Chromosomes are not the underlying structure that provides the necessary condition for membership in the kind *woman*.

3.2. Are Females Just XX?

If Putnam's worry about metaphysical necessity can extend to *woman*, then it might also apply to the kind *female*. That is, if an altered environment could result in individuals who are XX but not recognisably women (so XX is not the essential property of the kind *woman*), then might there be individuals who are XX but not recognisably female? If so, then underlying physical structure might not be what provides the necessary and sufficient conditions for membership in the kind *female* either.

In order for it to be an intelligible possibility that not all XX-individuals are female, XX cannot characterise the kind *female* by definition. (I.e. it cannot be a conceptual truth that XX characterises *female*; if it were, then asking whether some females might not be XX is

like asking, *de dicto*, whether some bachelors might not be unmarried). Thus far, I have been assuming that to be female just is to be XX, regardless superficial characteristics. But closer examination reveals that this assumption may be incorrect. Just as we associate certain superficial characteristics with *woman*, we associate superficial characteristics with *female* and its members – namely the secondary sex characteristics that we also associate with women. The sortal concept *female* has the same content (i.e. same list of features associated with it) as the sortal concept *woman* (alternatively, the terms ‘female’ and ‘woman’ have the same primary intension).

One reason for taking *female* as a sortal concept whose content is given by secondary sex characteristics (instead of by chromosomal structure) is that we classify someone as female not by what her chromosomes are, but by her appearance. We then infer from this appearance to her chromosomal structure. Given that superficial characteristics provide the primary intension of ‘female’, it makes sense to ask whether someone might have XX chromosomes without being female and whether someone might be female without having XX chromosomes, (i.e. neither question is just whether someone might have XX chromosomes without having XX chromosomes). So being a member of the kind *female* seems to rely not just on satisfying the necessary and sufficient condition of being XX, but also on being constrained by the sortal concept. That is, *female* is not a Kripkean kind that can be characterised by necessary and sufficient conditions for membership. It is better thought of as a kind along the lines of Hale’s analysis, where kind membership is initially restricted to the things that satisfy the sortal concept which in addition, satisfy a necessary condition. So someone may satisfy the sortal concept *female* without satisfying the necessary condition, and so not be a member of the kind *female*. (This accommodates people who have

the superficial characteristics of females/women, but are not XX, e.g. certain intersex individuals and transsexuals. These people satisfy the sortal concept *female* but are not XX, and so are not members of the kind *female*).

A problem with adopting this approach to the kind *female*, however, is that it seems to exclude people we intuitively want to include as members of the kind, that is, people who satisfy the necessary condition, but not the sortal concept. Such people might either have XX chromosomes and atypical secondary sex characteristics, or be transsexual (woman → man). If someone *must* satisfy the sortal concept to even be considered a member of the kind, then no one can be female unless she exhibits the appropriate identifying marks. There are two reasons for resisting satisfaction of the sortal concept as a necessary condition for kind membership, however. The first (already mentioned) is that it excludes people who we intuitively want to consider members of the kind. The second is that if someone must satisfy the sortal concept *female* in order to be a member of the kind *female* and it is possible to stop satisfying the sortal concept (e.g. by having a sex change), then, assuming that a person persists through such a change (i.e. the person who existed before the sex change does not go out of existence), the sortal concept *female* is not a basic sortal concept, and so the necessary condition for being female (i.e. XX chromosomes) is not an essential property of anyone who *is* female. But this seems wrong because intuitively, if anything is an essential property of a person, it is her chromosomes (more on this below).

One way to respond to this problem is to claim that the sortal concept *female* is not the same as the sortal concept *woman*, or else simply to deny that there is a sortal concept *female*. For example, the concept *woman* might include features that *female* does not (e.g. dressing or behaving in certain ways). But distinguishing the sortal concepts *woman* and

female does not actually solve the problem; *female* remains a non-basic sortal concept, so chromosomes remain a non-essential property.

Alternatively, someone might deny that there is a sortal concept *female*. We only think there is such a sortal concept because we assume (incorrectly) that all women are XX; we import the sortal concept *woman* to the necessary (and sufficient) condition for the kind *female*, XX. There is only the sortal concept, *woman*; the idea that there is a sortal concept *female* arises from the confusion of taking XX to be essential to what falls under the sortal concept *woman*.

But denying the sortal concept, while it explains how chromosomes are an essential property, gives rise to two other problems. One is that it seems that we do have a sortal concept *female*. A second is that if there is no sortal concept *female* that functions to restrict membership in the kind *female*, and the kind *female* is characterised by necessary and sufficient conditions (i.e. being XX), then we are stuck with two notions of kind – one that permits candidate member restriction via sortal concept (Hale’s) and one that relies on underlying structure alone (Kripke’s).

But unlike the earlier account that required two notions of a kind, it might turn out this time to be acceptable, even advantageous, especially if this approach accommodates what only one kind of kind cannot. If *female* is a more “scientific” kind than *woman*, then we might expect that it does not rely on a sortal concept, that it can be identified solely in terms of underlying structure. But if this were the case, then *water* (which is at least as scientific a kind as *female*) should also be identifiable by necessary and sufficient conditions; as both Hale and Putnam note, H₂O is not necessary and sufficient for being water. That is, an

advocate of the dual-kind approach would have to explain why *female* can be identified by necessary and sufficient conditions, but *water* cannot be.

If we have a sortal concept *female*, however, then there is a problem with treating *female* as a kind restricted by this sortal concept. Since it is possible to stop satisfying the sortal concept without ceasing to exist, *female* is not a basic sortal concept, and so the necessary condition for membership in the kind, XX chromosomes, is not an essential property of the members. This goes against the intuition that chromosomes are essential to people (i.e. they cannot undergo a change in chromosomes without undergoing a change in identity). One way to accommodate the intuition that chromosomes are essential even if *female* is not a basic sortal, is to allow that chromosomes are essential, but only because having certain chromosomes is a necessary condition for being a member of a different kind that is picked out by a basic sortal. So chromosomes are essential to people because they satisfy this other sortal, and not by virtue of satisfying the sortal *female*, nor by being a member of this kind. So chromosomes may not be essential to a female qua *female*, but may be essential to her by being the necessary condition for membership in some other kind.

But while it may be possible to accommodate intuitions about chromosomes being essential, even if *female* is a phase sortal, the earlier problem, that someone stops being a *female* if she stops satisfying the sortal concept, is left unaccounted for. That is, someone who changes her superficial characteristics so that she no longer satisfies the sortal concept *female* is no longer a female (i.e. a member of the kind), despite retaining XX chromosomes. Because she still has XX chromosomes, she still seems to be a member of the kind. There are two ways to deal with this. The first is just to say that people who do not, or no longer, satisfy the sortal concept are not members of the kind (i.e. sortal-satisfaction is necessary for

kind membership). The intuition to call people ‘female’ who do not satisfy the sortal is attributable to a deficiency in vocabulary; the term(s) (if there is one) for someone whose chromosomes do not match her superficial characteristics is (are) not commonly used. So when we discover that someone’s superficial characteristics do not match the underlying structure in the way we first thought, we continue to group them according to their underlying structure, albeit incorrectly. And it is because we continue to classify people according to their underlying structure that we consider them members of the kind *female*, even though strictly speaking, they are not.

But our tendency to classify people according to underlying structure, whether or not they satisfy the sortal concept, might suggest that people who satisfy the necessary condition *are* members of the kind, regardless of whether they satisfy the sortal concept that most of the other members do. On this account, the sortal concept serves to restrict what initially might be considered a member of the kind, based on surface characteristics. Once the candidate members of the kind are identified, the necessary condition for being a member is what most of these have in common (e.g. most females look a certain way and are also XX; so XX is the necessary condition for membership in the kind). And once the necessary condition is determined, kind membership may be extended to anything that possesses the necessary condition. This would allow us to accommodate the intuition that certain intersex individuals and transsexuals are female, even though they do not satisfy the sortal concept.

It might be objected, however, that using a sortal concept to determine the necessary condition for kind membership and then allowing the necessary condition to become both necessary and sufficient for kind membership would allow, e.g. a pink solid composed of H₂O to count as water. After all, if *most* water is H₂O, and we “find” a world where all H₂O

composes pink solids, then these pink solids are also water. But this need not be so: it seems that some of the constraints the sortal places on kind membership can be retained. As discussed above, even basic sortal concepts, such as *water*, are not conceptually basic. So we could require that something can be a member of a kind if it 1) satisfies the necessary condition and 2) satisfies some minimal number of constituent simple concepts that compose the basic sortal. This kind of restriction would allow water that has been dyed red to count as water, and for ice (not a liquid) to count as water as well.

Such an account would allow people who are XX but do not satisfy the sortal concept *female* to be members of the kind *female*. The necessary condition is determined by a property that *most* of the people who satisfy the sortal concept possess – being XX. But it need not include *everything* that is XX. E.g. were a sea slug discovered to have XX chromosomes, it would not be counted as a member of *female* because it would not satisfy a minimal number of the constituent simple concepts of the sortal *female*. This account also allows *female* to be a basic sortal concept (it is not possible to stop being female without changing chromosomes, which intuitively, seems to amount to either a change in identity or a going out of existence), and so explains the intuition that chromosomes are essential to a person.

But if the necessary condition for membership in a kind is determined by a property that most of the things that fall under the sortal concept possess, it might be argued that the kind *woman* can be characterised by XX for all the reasons *female* can. That is, most people who fall under the sortal concept *woman* are also XX, and since most people who satisfy the sortal concept *woman* also have this property, it provides the necessary condition for being a member of the kind *woman*; so *woman* is not actually a distinct kind from *female*. But there

is an important difference between *woman* and *female* that allows the latter to be characterised by XX and the former not. I have been taking the sortal concepts *woman* and *female* to have the same content, where this is understood as being composed of the same features, or as the terms ‘woman’ and ‘female’ having the same primary intension. Despite this, being a member the kinds *female* and *woman* does not depend on satisfaction of the same necessary condition (i.e. ‘woman’ and ‘female’ do not have the same secondary intension). The secondary intension for ‘female’ includes the underlying structure XX, whereas the secondary intension for ‘woman’, as discussed above, need not. This accounts for why, in order to be a member of the kind *woman* someone must have certain superficial characteristics and not necessarily a particular underlying structure, whereas to be a member of the kind *female*, the underlying structure is more important than the superficial characteristics.

That is, everyone who is a member of the kind *female* is XX. So XX is the necessary condition for membership in the kind *female*, but not for the kind *woman*, because most people who satisfy the sortal concept *female* are XX. Additionally, everyone who is XX and minimally satisfies the sortal concept *female* is a member of the kind.

By contrast, although most members of *woman* are XX, being XX is not the necessary condition for membership in this kind. The reason for this is that not all women (or people we want to consider members of the kind *woman*) have this property. The kind *woman* cannot be identified with the kind *female* or by the property *being XX* because intuitively, some of the people who are members of the kind *woman* are neither female nor XX. Allowing this to be the necessary condition for membership in *woman* would allow someone to be a member of the kind even if she did not satisfy the sortal concept, just as long

as she is XX. But while extending the necessary condition to a sufficient condition accommodates intuitions about females, this characterisation of women does not capture intuitions about members of the kind *woman*. In particular, it excludes anyone who satisfies the sortal concept but is not XX (i.e. women who are not female), and includes anyone who is XX, regardless of what their surface traits are (i.e. people who are XX but fall under the sortal concept *man*). To avoid this, the necessary condition for membership in *woman* should be provided by something that more accurately captures the secondary intension of ‘woman’, which, whatever it may be, does not seem to be an underlying physical or biological property.

4. An Attempt at Social Essence

Underlying physical properties, or biological properties, do not seem to be what provides the necessary condition for membership in the kind *woman*. One reason for this is that if the necessary condition for membership in *woman* were biological, then it seems that it would be either just the same property that provides the necessary condition for *female* (or at least, it would be reducible or traceable to it). So proposing a necessary condition in terms of biological properties seems not even to take seriously the idea that *woman* and *female* are distinct kinds. Another is that, as already discussed, a biological essence to the kind *woman* seems to exclude people we want to include in the kind; so a biological essence would not correctly characterise the group. In order to preserve the intuition that people need not have a certain biological structure in order to be a woman, the necessary condition for membership in the kind needs to be separated from underlying structure.

Finally, a reason not to take the essence of *woman* as biological is that feminist theorists, such as Marilyn Frye (1983) and Sally Haslanger (2005) argue that a property by which women can be identified is not a biological property, but a social property. In particular, they identify being oppressed as characteristic of women. While I do not think that this need be the property that provides the necessary condition for membership in the kind *woman*, I take it as an example, in order to illustrate how essence might be given by a social property. Any of a variety of social properties might provide the necessary condition for kind membership, just as long as the property that provides the necessary condition relates to the

sortal concept and superficial characteristics in the same way as being oppressed does (what way this is emerges later).

In her essay “Oppression” (1983), Marilyn Frye offers a broad definition of oppression. She describes what it is to be oppressed, and then argues that women’s experiences fit this description.

The experience of oppressed people is that the living of one’s life is confined and shaped by forces and barriers which are not accidental or occasional and hence avoidable, but are systematically related to each other in such a way as to catch one between and among them and restrict or penalize motion in any direction. (Frye 4).

The reason that women’s lives fit this description is that they are members of a group, the group (or kind) *woman*. “If an individual is oppressed, it is in virtue of being a member of a group or category of people that is systematically reduced, molded, immobilized. Thus, to recognize a person as oppressed, one has to see that individual *as* belonging to a group of a certain sort,” (Frye 8). Frye is not arguing for a particular conception of the kind *woman*, or that to be a member of the kind just is to be oppressed but that women are, as a matter of fact, oppressed, and oppressed because they are women. Her observations (are intended to) apply to all members of the group, i.e. be true of all women, so the property she uses to characterise women is a plausible candidate for a necessary condition for membership in the kind *woman*. According to Frye, if someone is a woman, then she is oppressed because she is a woman. In order for a person to be considered a woman, she must satisfy the sortal concept *woman*; and if she satisfies the sortal concept (i.e. if she has (or is perceived to have) certain superficial features) then she is oppressed because she has (or is perceived to have) these features.

While Frye does not argue that being oppressed is part of what it means to be a woman, but simply points out that being oppressed is part of women’s experience, Sally Haslanger argues that being oppressed is part of what it means to be a woman, i.e. being

oppressed is the necessary condition that someone falling under the sortal concept *woman* must satisfy in order to be a woman. In her article, “Gender and Race” (2005), Haslanger identifies *being oppressed by virtue of being a woman* as the necessary condition someone must satisfy in order to be a woman. She says, “On my analysis women are those who occupy a particular *kind* of social position, viz., one of sexually-marked subordinate. So women have in common that their (assumed) sex has socially disadvantaged them,” (Haslanger 163). One reason for taking this as the property that provides the necessary condition for membership in the kind *woman* is that it seems like the kind of property that would apply to everything that falls under the sortal concept. That is, the necessary condition is supposed to be determined by what the things that satisfy the sortal concept have in common. Since, in the case of women, the things that satisfy the sortal concept are people who look a certain way, if they have whatever additional property constitutes the necessary condition because they look this way, then anyone who satisfies the necessary condition also falls under the sortal concept. So being e.g. oppressed by virtue of (perceived) secondary sex characteristics or (assumed) sex is 1) a property that people who satisfy the sortal concept *woman* in fact have and 2) not just part of the concept *woman*. Both these features make it a plausible candidate for (an example of) the necessary condition that must be satisfied in order to be a member of the kind *woman*.

Using this as the necessary condition for membership in the kind *woman* allows for the separation of *woman* and *female*. By appealing to “assumed sex”, Haslanger’s criterion

includes all the people who look like women, whether or not they actually *are* XX.² This account of *woman* does not encounter the same problems as the account of the kind *female* given above. The problem for the account of *female* was that some people satisfied the necessary condition without satisfying the sortal concept, and so would not be considered members, if both are required for kind membership. In order to accommodate this, the sortal concept was used to determine the necessary condition, and then whatever satisfied the necessary condition was admitted to the kind, provided that it also minimally satisfied the sortal concept. But on this account of *woman*, anyone who satisfies the necessary condition also automatically satisfies the sortal concept, since it is not possible to be oppressed by virtue of being a woman unless you actually are one.

Besides not falling into the same kinds of difficulty that the kind *female* did, this characterisation of kind *woman* is interestingly different from *female* in a variety of ways. One is that (as previously mentioned) unlike *female* (or any other kind I have considered so far) the necessary condition for membership in the kind is directly dependent on the sortal concept. While the necessary conditions for other kinds depend on the sortal concept in that the necessary condition is often taken to be whatever is common to the things that satisfy the sortal concept (i.e. were the content of the sortal concept different, it would apply to different things, so the necessary condition for kind membership would also be different), the necessary condition for *woman* actually *contains* the content of the sortal concept *woman* – (perceived) secondary sex characteristics. Because of this, the satisfaction of the necessary condition for membership in the kind *woman* depends on satisfaction of the sortal concept in

² The assumption that sex is determined by chromosomes (and so that “assumed sex” refers to “assumed chromosomal structure), rather than surface traits alone, is not one that Haslanger makes explicit, but this is how I am choosing to interpret it, especially since it is in line with my earlier discussion of *female*.

a way satisfaction of the necessary condition for *female* does not depend on the sortal concept *female*. In order to satisfy the sortal concept *woman*, someone must possess certain surface traits, and it is because she possesses these traits that she satisfies the necessary condition for membership in the kind *woman*. And if someone satisfies the necessary condition, she satisfies it only by virtue of possessing certain surface traits, and so falls under the sortal concept. So the necessary condition for membership in the kind *woman* is also a sufficient condition for membership in the kind. Anyone who is a member of the kind *woman* is oppressed by virtue of being a woman (i.e. satisfying the sortal concept *woman*), and anyone who satisfies the necessary condition also satisfies the sortal concept and so is a member of the kind. So the kind *woman* turns out to be vaguely Kripkean (in that it is characterised by necessary and sufficient conditions) after all.

The kind *woman*, although it can be characterised by necessary and sufficient conditions, differs from other Kripkean kinds (e.g. *water*) in at least two important ways. The first is that the necessary and sufficient conditions for Kripkean kinds are given in terms of underlying physical structure. But for the kind *woman*, the necessary and sufficient conditions are given in terms of surface characteristics, which are not directly dependent on a single underlying physical structure, and what results from possession of these.

Another way in which *woman* differs from a kind that is typically characterised in terms of necessary and sufficient conditions is that the kind of necessity with which the essence attaches to its members (or with which the members satisfy the conditions) is not metaphysical necessity or even physical necessity. Because being oppressed is a social property, the members of the kind *woman* only possess this property in particular social systems. So although the kind is characterised by necessary and sufficient conditions which

can serve to pick out members of the kind, satisfaction of the conditions is neither absolute nor relative to physical laws; it is relative to social structures. Because of this, the necessary (and sufficient) condition for membership in the kind *woman* is not satisfied necessarily by anyone who happens to actually satisfy it. Even if secondary sex characteristics are essential to kind members, it is not necessary that they are oppressed because of them. That is, the conditions that must be satisfied in order to be a member of the kind *woman* are only essential to the members insofar as it is necessary that they are part of certain social systems, and that those social systems are the way they are.

Even though *woman* is a kind that can be characterised by necessary and sufficient conditions, the sortal concept *woman* is not a basic sortal, it is a phase sortal. The reason that *woman* is not a basic sortal is that someone may satisfy the sortal for part of her existence, but not for another, without thereby ceasing to exist.³ If a woman has an operation that changes her superficial characteristics so that she no longer satisfies the sortal concept *woman* but instead satisfies the sortal concept *man*, she arguably has not gone out of existence, although she no longer satisfies the sortal concept *woman*. Although she no longer satisfies the sortal concept, she may still be a member of the kind if she continues to satisfy the necessary condition (as we saw with *female*, once the necessary condition is determined by what falls under the sortal concept, the necessary condition may also be sufficient for kind membership). But unlike the sortal concept *female*, where it is possible to stop falling under the sortal concept and continue to satisfy the necessary condition (and so remain a member of

³ It might be thought that *woman* is obviously a phase sortal, since we don't consider babies or children to be women. Perhaps the idea of basic sortal could be somewhat broadened to avoid this problem. E.g. a basic sortal is one that once something *does* satisfy it, if it stops satisfying it, it stops existing. Anyway, it seems that this kind of modification would be needed to account for development in all kinds of species.

the kind), it is not possible to stop satisfying the sortal concept *woman* and continue to satisfy the necessary condition. The reason for this is that satisfying the necessary condition depends on satisfying the sortal concept.

But women are not essentially members of the kind *woman* for another reason, that is, not just because *woman* is not a basic sortal. Although one way for a woman to stop being a member of the kind *woman* is to first stop satisfying the sortal concept and so stop satisfying the necessary condition, another way for a woman to stop being a member of the kind *woman* is to first stop satisfying the necessary condition. Not satisfying the necessary condition, while still satisfying the sortal concept, does not involve a change in the appearance of an individual woman, but a change in the social structure in which she finds herself. Because satisfying the necessary condition depends on social structure, a change in this structure could affect whether women are oppressed by virtue of their (perceived) secondary sex characteristics, and so affect whether they continue to be members of the kind *woman*. Haslanger argues that this is the kind of change that needs to be brought about: “In fact, I believe it is part of the project of feminism to bring about a day when there are no more women (though, of course, we should not aim to do away with females!)” (Haslanger 163-164).

4.1. Objections to this Kind of Account

In the preceding section, I have argued for a characterisation of the kind *woman* where the necessary condition appeals to satisfaction of the sortal condition. That is, the necessary condition for membership in the kind *woman* is given as ‘having property *P* by virtue of (perceived) secondary sex characteristics or (assumed) sex’. But because satisfaction of the necessary condition (regardless of the specifics of what *P* are) requires

satisfaction of the sortal concept, and the content of the sortal is given by conceptual analysis, it might be argued that the necessary condition for membership in the kind *woman* is also just determined by conceptual analysis. If so, then it is not surprising that the necessary condition is also a sufficient condition – the condition is determined by conceptual analysis, and so is necessary and sufficient because that just is what it is to be a member of the kind *woman*. That is, the necessary condition, because it is just a matter of conceptual analysis, is not doing any metaphysical work in determining who or what women are.

But just because determining the content of the sortal concept *woman* (i.e. determining which features someone must have in order to satisfy the concept) is a matter of conceptual analysis, determining whether people who satisfy the criterion given by the analysis have some additional property (e.g. being oppressed) is not so determined; nor is it determined by conceptual analysis whether or how the attribution of this property is related to the original criterion. While the identifying marks of women may be determined conceptually, that people with these marks also possess some other property (such as being oppressed) is not. The necessary condition is not given by conceptual analysis, it is discovered.

Another problem that might arise from the sortal concept *woman* appearing in the necessary condition for membership in the kind *woman* is that it seems that the content of the sortal concept *woman* is the same as sortal concept *female*; anyone who satisfies one sortal concept satisfies the other. As such, it seems that the necessary condition for membership in the kind *woman*, ‘being oppressed in virtue of (perceived) secondary sex characteristics’, is equivalent to both ‘being oppressed in virtue of being a woman’ and ‘being oppressed in virtue of being a female’ (if it is supposed that sortal terms ‘woman’ and ‘female’ are

equivalent to the content of the sortal terms, '(perceived) to have certain secondary sex characteristics'). And this, it might be argued, shows that women do, in fact, have a biological essence and are, after all, just the same as the kind *female*.

But while the substitution of 'woman' for the sortal content is legitimate, the substitution of 'female' is not. If 'female' is substituted in for the sortal content in the necessary condition for the kind *woman*, then the condition reads as 'being oppressed by virtue of having (or being perceived to have) certain secondary sex characteristics and additionally, being XX' – that is, the inclusion of 'female' limits the people who in fact qualify as members of the kind *woman* to those who have a certain underlying structure and are oppressed by virtue of the characteristics this structure gives rise to. But the necessary condition for membership in the kind *woman* is due to superficial characteristics, not underlying structure, and the superficial characteristics are not systematically related to any specific underlying structure. So interpreting the property as equivalent to 'oppressed by virtue of being female' excludes anyone who falls under the sortal concept *woman* but is not, in fact, XX, even though people who fall under the sortal concept *woman* may well be oppressed because of their appearance without being XX. 'Female' cannot simply be substituted in to the necessary condition that characterises the kind *woman*, even though 'female' has the same primary intension as 'woman', because the substituting 'female' also imports the secondary intension of 'female', and so imposes an extra requirement on the necessary condition for membership in *woman*, namely that they all be XX, which needs to be avoided.

Finally, someone might object to the idea that the necessary condition for membership in the kind *woman* does any real metaphysical work because the necessary

condition is given by conceptual analysis. This objection differs from the one raised earlier; this time, the charge of conceptual analysis is not due to the appearance of the sortal concept (admittedly determined by conceptual analysis) in the necessary condition, but to the social nature of the necessary condition. That is, someone might think that the kind *woman*, as characterised by a necessary and sufficient condition, reduces the term ‘woman’ to what Putnam calls a “ ‘one-criterion’ word” (1975: 244), similar to ‘pediatrician’. While there are necessary and sufficient conditions for being a pediatrician, determining which conditions must be satisfied is simply a matter of *defining* the term ‘pediatrician’.

[W]e might doubt that there *are* any true one-criterion words in natural language, apart from stipulative contexts. Couldn’t it turn out that pediatricians aren’t doctors but Martian spies? Answer ‘yes’, and you have abandoned the synonymy of ‘pediatrician’ and ‘doctor specializing in the care of children’. It seems that there is a strong tendency for words which are introduced as ‘one-criterion’ words to develop a ‘natural kind’ sense, with all the concomitant rigidity and indexicality. (Putnam 244).

That is, it seems that there is an essential property to being a pediatrician, namely, being a doctor specialising in the care of children. This does not mean, however, that there is a metaphysically interesting kind, *pediatrician*. The reason for this is that the property that gives the criterion for being a member of the kind is stipulated – satisfaction of the conditions for membership in the “kind” is simply given by the meaning of the word ‘pediatrician’.

If the kind *woman* were similar to the kind *pediatrician*, then the property that provided the criterion for membership in *woman* would tell us no more about what it is to be a woman than is given by the meaning (or primary intension) of the word.⁴ There are two reasons for thinking that *woman* might be the same kind of “kind” as *pediatrician*. One is

⁴ If *woman* were a kind like *pediatrician*, then the only criterion for being a member of the kind would be satisfying the sortal concept (or primary intension); the secondary intension could not be part of the criterion, because the property it picks out is not determined by stipulation or conceptual analysis.

that both kinds seem to depend on something essentially social. Another is that both *pediatrician* and *woman* are phase sortals – so while it may be that the properties are essential to the kind, they do not attach essentially to the kind members.

While the kind *woman* does share these features with the “kind” *pediatrician*, it seems that it is not simply a kind determined by a ‘one-criterion’ word, because, as argued earlier, the property that provides the necessary condition for membership in the kind is not determined by conceptual analysis. While being a doctor that specialises in the care of children just is (part of) the meaning of ‘pediatrician’, it does not seem that possessing some social property (e.g. being oppressed) because of her (perceived) secondary sex characteristics or (assumed) sex is part of the meaning of ‘woman’. Although the property does not attach to women necessarily, that it attaches to women at all is not determined by analysing what the word ‘woman’ means. So the property that characterises the kind *woman* is doing metaphysical work; it is not given simply by conceptual analysis.

4.2. Summary

In this section, I argued that the necessary condition for membership in the kind *woman* can be given in terms of a social property. I considered as an example of such a property *being oppressed by virtue of (perceived) secondary sex characteristics*, although it seems that other social properties could equally well characterise the kind *woman*, just as long as the members of the kind have the property because they satisfy the sortal concept (i.e. they satisfy the necessary condition because they have certain superficial characteristics).

Understanding the essential property of the kind *woman* in terms of a social property and social structure results in the emergence of a kind of kind that is interestingly different than kinds that are characterised in terms of underlying structure. While the criterion for

membership in the kinds based on underlying structure, such as *female*, cannot be given in terms of necessary and sufficient conditions (because of Putnam's worries about physical laws), the criterion for membership in the kind *woman* can be. In this way, *woman* is very much like a Kripkean kind, in that the kind can be identified with a single property – e.g. being oppressed by virtue of (perceived) secondary sex characteristics. But unlike Kripkean kinds, it is not the case that anyone who has this property has it necessarily. The property that the kind can be identified with (i.e. the property essential to the kind) is not an essential property of the kind members. Women can stop being women either by changing their physical appearance (this does not mean that they stop being female, however), or by no longer being in a social system which oppresses because of their physical appearance.

5. Conclusion

I began this paper by claiming that in order to understand statements about the lives or conditions of women or answer questions about what might be done to improve their situation (if it in fact needs to be improved), we first need to ascertain who we are talking about. I hope to have at least provided a starting point for this project.

Towards the end of determining who and what women are, I have argued that although superficial physical characteristics are of central importance to characterising the kind, underlying physical characteristics are not. But underlying physical structure *is* essential to being female; so determining answers to questions about what should be done for women cannot be answered by determining what should be done for females. Furthermore, this distinction makes it possible to ask in a particular situation whether the kind we ought be concerned with is *woman* or *female*, and to address issues concerning the one or the other appropriately.

I have also shown that there is a legitimate and metaphysically interesting understanding of the notion of a kind that does not depend on underlying physical structure, but on superficial physical and social structure. While this characterisation departs in certain ways from the Kripkean notion of what a kind is (e.g. it is not given in terms of underlying physical structure, and the property by virtue of which the members are in the kind need not be a property they possess necessarily), it remains faithful to it in ways that kinds characterised in terms of underlying structure do not (e.g. the criterion for membership in such a kind can be identified with one property, which is both necessary and sufficient for

membership in the kind). While including kinds that are not based on underlying physical structure might seem to broaden the notion of kind in an unintuitive direction, it might also be seen as an attempt to preserve certain features of the Kripkean account that cannot be retained by kinds based in underlying physical structure.

Finally, although I do not ultimately argue for any specific property as the one that someone must possess in order to be a member of the kind *woman*, I hope that my discussion has provided a basis for determining what kind of property this is – in particular, that it must be a non-biological property. And if the kind *woman* is to be identified with this property (i.e. if the property is to be both necessary and sufficient for membership in the kind), then members of the kind must have this property by virtue of satisfying the sortal concept *woman* (or by virtue of satisfying the primary intension of the term ‘woman’). Since sortal concepts, or primary intensions, are given by superficial properties, requiring that the sortal concept be satisfied in order to be a member of the kind⁵ explains how and why superficial characteristics are essential to the kind *woman*.

⁵ This is not achieved by making sortal satisfaction necessary for kind membership as part of the theory (which causes problems when kind membership is determined by underlying structure, as was the case with *female*) but by building sortal satisfaction into the necessary conditions for individual kinds.

Works Cited

- Chalmers, D. 2006. "Two-Dimensional Semantics." In *The Oxford Handbook of Philosophy of Language*. Lepore and Smith eds.: 574-606. Oxford: Oxford UP.
- Fausto-Sterling, A. 1993. "The Five Sexes." *The Sciences* 33 (2): 20-25.
- Frye, M. 1983. "Oppression." In *The Politics of Reality*. 1-16. Berkeley: The Crossing Press.
- Hale, B. 2004. "Putnam's Retreat". *Midwest Studies in Philosophy* 28: 351-378.
- Haslanger, S. 2005. "Gender and Race." In *Feminist Theory*. Cudd and Andreasen eds.: 154-170. Malden, MA: Blackwell Publishers.
- Kripke, S. 1980. *Naming and Necessity*. Cambridge: Harvard UP.
- Putnam, H. 1990. "Is Water Necessarily H₂O?" In *Realism with a Human Face*. Conant ed.: 54-79. Cambridge: Harvard UP.
- Putnam, H. 1975. "The Meaning of Meaning." In *Philosophical Papers*. 215-271. New York: Cambridge UP.