Sociology Vol. 35, No. 1, pp. 159–175. Printed in the United Kingdom

Theorising Social Constraint: The Concept of Supervenience

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ABSTRACT This paper evaluates Kieran Healy's recent contribution to the structure–agency debate. Supervenience, I argue, has multiple uses, it entails different ontological perspectives depending on which entities it is applied to and which conditions are placed upon subvening and supervening entities. Healy's use of supervenience is unclear. On the one hand, applied to individual–society relations it does nothing more than restate the trivial truth: no people – no society. On the other hand, if supervenience is to be applied to structure–agent relations the consequence is extreme voluntarism. In either case it simply fails to address Healy's key concern: conceptualising social constraint. I then argue that an alternative way of grasping structural constraint in the present might be to view past-tense 'activity dependence' as 'Cambridge events'.

KEYWORDS agency, Archer, Cambridge event, Healy, social structure, supervenience

In a recent article in this journal Kieran Healy (1998) argued that the concept of supervenience might serve a useful role in the structure–agency debate in sociology. He believes that not only does it lead to a simpler realist ontological claim but that it will help to overcome the confusion implicit in Margaret Archer's (1995, 1996a, 1996b) idea that some social structures are past tense 'activity dependent'.[1] The primary purpose of this paper is to assess the usefulness of 'supervenience' with respect to the structure–agency problem and to suggest ways in which social theory might capture the feeling of social constraint inherent in situations of 'morphostasis'. As the concept of supervenience has a variety of meanings I begin by defining its potential. This will involve looking at the way in which the concept has been used elsewhere – specifically in the field of ethics and the philosophy of mind (the mind–body debate). Having established a full and accurate interpretation of supervenience it may then be possible both to assess the concepts use in the Archer–Healy context of 'analytical dualism', and to apply it to the structure–agency problem more generally.

Given that the concept of supervenience is frequently used in a debate over reductionism and dualism in the philosophy of mind it could offer some promise in a structure–agency context. The mind–body debate, which has a much longer history than its sociology counterpart, shows many similarities to what has

happened in social theory in recent decades and has included contributions from all sides ranging from an out-and-out reduction of the mental to the physical to a Cartesian dualism. As in sociology in recent years questions have been raised about the validity of these extreme positions; physical reductionists appear to have failed to overcome problems of 'multiple realisation' and qualia (the intuitive feeling that the mental is qualitatively distinct from its physical base), whilst traditional dualists have not managed to explain, beyond the mysterious existence of a soul, in what way mental phenomena might be causally efficacious. It was in this context that supervenience was introduced as a rescue package that appeared to enable philosophers of mind to combine ontological monism (physicalism) with substance dualism (mind and body) – a non-reductive physicalism. The concept has also played a significant role in the fields of both ethics and aesthetics. In these domains it has been used as a way of overcoming faults associated with naturalism (see below).

At first sight then, the introduction of 'supervenience' into the field of social theory would seem like no bad thing. Perhaps it can do for sociology what its advocates claim it has done for psychology. That is, to allow us to escape from a crude reduction whilst maintaining the importance of base properties. This, it is assumed, is what Healy is hoping for. Before we can begin to assess its merits in this sense we need to understand clearly what 'supervenience' entails. The concept has multiple meanings and these must be clarified before we attempt to apply it to the realm of social theory.

What is supervenience?

As the supervenience thesis in its structure–agency context is proposed by Healy, I shall begin with his explication. Healy (1998:516-17) states: 'To say that *A* supervenes on *B* is to say there can be no difference in *A* without there being differences in *B*. This implies that when cases agree in subvening respects they agree in supervening respects'. Although this cursory description of supervenience is in a sense accurate it is also insufficient. In the philosophy of mind, in ethics, and in aesthetics, where the concept has been most often applied, there is much more to supervenience than simple covariance between two or more entities. In fact, Healy's brief summary is consistent with full-blown reductionism. That is, to say that there exists a covariance between *A* properties and *B* properties may be construed as saying: *A* can be reduced to *B*[2] in terms of Nagelian reduction.[3] Furthermore, as Kincaid (1994:498) notes, in the old debate between methodological individualists and collectivists Watkins (1968) claimed that supervenience leads to the conclusion that 'the social supervenes on the individual in the sense that any two social domains exactly alike in terms of the individuals and individual relations composing them would share the same social properties'.

Here, supervenience is governed by the 'exhaustion principle'. This states, simply

and uncontroversially, that: 'individuals exhaust the social world in that every entity in the social realm is either an individual or a sum of such individuals' (Kincaid 1994:499). A methodological individualist ontology, the notion that social entities are nothing more than resultant properties, requires that supervenience entails reduction. This, it is claimed, follows from the 'determination principle' which has been defined as meaning that 'individuals determine the social world in the intuitive sense that once all the relevant facts … about individuals are set, then so too are all the facts about social entities, events, etc.' (Kincaid 1994:499). However, it is clear in the structure–agency debate that the key protagonists do not want this kind of explanation of social activities. For example, Archer (1996a:xii) sums this up when she asks sociologists to accept, *a priori*, the common sense intuition that 'it is part and parcel of daily experience to feel both free and enchained, capable of shaping our own futures and yet confronted by towering, seemingly impersonal constraints'.[4] Thus, a clear understanding of non-reductive supervenience is our first priority. This brings us back to the uses of supervenience in other areas of philosophy.

I will begin with an example adapted from R. M. Hare's *The Language of Morals* (1952), concerning the use of value words such as 'good', 'bad', 'ought', etc. Hare (1952:79ff) looks first at a non-moral use of the word 'good'. He asks us to suppose that before us are two paintings which are in all respects identical; imagine that one is a replica of the other. He claims that it would cause puzzlement or confusion to a listener should somebody claim that these two paintings are identical in all respects apart from the fact that one is good and the other is not. At first sight this implies that the meaning of the word 'good' might be reduced to the physical components of the two paintings; the definitely recognisable features of the paintings.[5] However, Hare argues, a reduction of 'good' in this way would make a nonsense of our use of evaluative terminology.

Why should this be so? Well, suppose that one such descriptive feature was 'her enigmatic smile' (strictly speaking, the physical composition of Mona Lisa's smile). If we now accept that the goodness of this picture can be reduced, it becomes impossible to say, for example, 'this picture is good because of her enigmatic smile'. This would be equivalent of saying this picture is good (i.e. enigmatic smile …) because it is good (i.e. enigmatic smile …). This leaves us in a difficult position. We can see how the goodness of the picture is dependent upon certain physically descriptive characteristics but we do not want to reduce 'good' to these features because we lose our evaluative conception of 'good'.

Hare's circumvention of this problem involved the introduction of a qualified notion of supervenience. He argued, we may begin by stating the obvious dependence relationship between the goodness of da Vinci's Mona Lisa and such characteristics as 'her enigmatic smile'. However, in order to avoid reductionism we may qualify this statement by adding that 'good' is a higher level property that is *distinct* from such base descriptive properties as 'her enigmatic smile'. The

descriptive property of the picture (the enigmatic smile, etc.) forms a minor premise whilst the evaluative property of the picture (general standards of assessing pictures) forms a major premise. The evaluative is clearly dependent upon the descriptive but the former cannot be reduced to the latter *à la* naturalism/reductionism.[6]

A further example of the use of non-reductive supervenience can be found in many physicalist theories of mind (see Chalmers 1996). It is suggested that supervenience accounts of the mind–body problem emerged from the need to explain non-reductive characteristics of consciousness (specifically the problem of qualia) in a physicalist ontology. This was necessary because simple reductionism failed to capture the qualitative character of mental properties adequately. How does supervenience help?

The matter is similar to Hare's analytical philosophy problem in so far as non-physical properties are dependent upon, but not reductively explained by, physical properties. Following the developments in neurophysiology it is evident that conscious experiences are correlated with neurophysiological measures of electrical activity, blood flow, etc. (see Hobson 1999). However, simple reductionist models fail to explain how these physical changes can instantiate the co-occurring conscious experiences. This problem, defined by Levine (1983) as the explanatory gap, has become a central focus for philosophers of mind (Chalmers 1996). Typically it is expressed in terms of a hypothetical relationship between cortical fibres and the qualitative character of mental phenomena such as pain, joy, love, etc. We want, in short, to recognise that mental phenomena possess emergent properties. It is argued that we can do this by placing conditions on the supervenient entity and its relation to its physical base. Kim (1996:149) sets out three such conditions for mind–body supervenience:

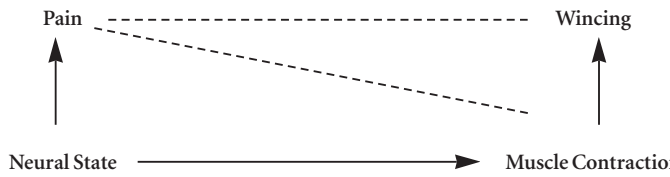
(1) If N is a neural state on which mental property M supervenes, then N is a sufficient condition for the occurrence of M.
(2) M can have multiple supervenience bases, N_1, N_2, …. , N_n each of which is sufficient to give rise to M.
(3) M is distinct from each of its many bases, N_1, N_2, …"

As he further notes, (1) entails a dependence relation, whilst (1) and (3) taken together entail ontological monism (physicalism) and substance dualism. The main problems with mind–body reduction arise from the contingency of (2) known as the problem of multiple realisation which hinders physical reduction.[7]

Following Kim (1996:150f) we can see how an account of pain based on a supervenience model might differ from reductionism in Figure 1. In this model pain is simply identical to neural state, wincing is identical to muscle contraction and the neural state, and it alone, causes muscle contraction. The introduction of a conditional form of supervenience allows several things (see Figure 2). First, it provides

Figure 1
A Reductionist's Model of Pain

Figure 2
A physical supervenient model



pain and wincing with their own identities, these mental properties supervene on, respectively, the neural state and muscle contraction. The mental, it is important to note, is a property in its own right; it is not reducible to, although it is dependent upon, its physical realiser. Thus, where both models capture the dependence of the mental phenomenon on its physical realiser the physical supervenient model grants, in addition to this, the mental the status of a distinct phenomenon. It appears to have solved the dilemma of whether to accept substance monism or dualism. But has it?

As Kim further notes, at best the jury is still out. The special status of distinct entity attributed to mental phenomena quickly dissipates upon closer inspection of the above model. For we can see that the causal powers of the mental phenomenon are, as with the reductionist model, wholly derived from its physical realiser; the mental may possess emergent properties in a qualitative sense but in terms of causation it remains vacuous. Thus, on all accounts, if the phenomenon cannot be shown to be causally efficacious without slipping back into the mysterious realm of Cartesianism, the reality of the mental, with respect to explanation, is doubtful.[8]

Healy's use of supervenience: the demographic structure

How does this bode for the introduction of supervenience in the structure–agency debate? At first sight, the prospect of success still seems promising. The

structure–agency debate does not appear to be riddled with the type of monism that has resulted in so many problems in the mind–body debate. We might therefore avoid the pitfalls of reductionism by anticipating that both supervenient and subvenient phenomena will be causally efficacious.[9] Before assessing this strong view of supervenience, let us look, first, at the example of the usefulness of supervenience as it is applied by Healy to the description and explanation of the so-called 'demographic structure'.

The demographic structure was introduced into the structure–agency debate by Archer (1995 and 1996b): it was used as an example of how the form of a structure (its emergent property or properties) might continue over a period of time despite the best efforts of agents to change it; a morphostatic circumstance. One effect of a top-heavy demographic structure, noted by Archer (1995:174), is the inability of a government to implement a generous pensions policy. How should we explain this situation? Archer argues that the endurance of the demographic structure cannot be attributed to contemporary actors. That is, we cannot lay the blame on the current generation, even though they constitute the demographic structure, because 'it was not *their* intention to structure it that way nor the unintended consequences of *their* actions, nor the intentionality of contemporary agents for we have presumed they all seek its transformation' (Archer 1995:143 emphasis in original). Consequently, '*the activity dependence of such structures can be affirmed in only one acceptable way: by reference to the activities of the long dead* (1995:143, emphasis in original).

It is at this point that Healy (1998:518) takes exception to Archer's use of 'activity dependence'. He argues: 'This is a very confusing and unhelpful way to speak of the relationship between social structures and individuals. It makes us believe in social structures whose existence in the present is entirely independent of the people who make up society, which is impossible'.[10] Healy's response is surprising as the implication of this statement is that he is not entirely convinced by a realist conception of social structures. For if we accept realism *à la* Archer (1995) and Bhaskar (1979 and 1989), we must accept the ontological independence of social structures.[11] Nevertheless, we can run with his point, it might seem rather odd that those who make up the 'aggregate' are left out of Archer's discussion of the demographic structure. According to Healy (1998:516) the introduction of supervenience at this point leads to 'a simpler ontological claim [which] can sustain … analytical dualism and avoid the problems faced by Giddens, Mouzelis and others'. He claims we can proceed in the following way: first, we state the demographic structure supervenes on everyone who makes it up; second, we acknowledge that there exists a causal chain stretching back from the present to past actions that explains why the demographic structure is top-heavy.

Consequently, both authors agree that the present demographic structure (DS_t) might, amongst other things one presumes, determine in the present the adoption of

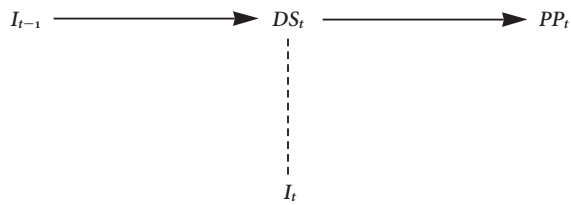
a pensions policy (PP_t) and that this can be explained by the actions of individuals in the past (I_{t-1}). We can, with relevant causal arrows, set this out in a diagram thus:

$$I_{t-1} \longrightarrow DS_t \longrightarrow PP_t$$

Both Archer and Healy acknowledge that members of DS_t are unable to do anything about DS_t and both agree that members of DS_t will be active with regard to some future demographic structure (DS_{t+1}). But Healy wants a role for members of DS_t now. The question is whether supervenience allows for such a role. Let us now adapt our diagram to show Healy's supervenience relationship between I_t and DS_t (see Figure 3). We can now see that today's individuals make up today's demographic structure. But how far does this get us with regard to a description or explanation of contemporary events? The broken line represents a supervenient relationship. It is broken for a purpose: because Healy acknowledges that in terms of explanation it is I_{t-1} that is doing all the causal work. Thus, like the mind–body example, the role of one of the phenomena is vacuous (although here it is the subvenient kind). As such it has no explanatory force. The introduction of supervenience has achieved very little! Healy's 'supervenience' is nothing like the relation hoped for by non-reductionist physicalists, because in this example we find that reduction gives us all that we need. In addition to the careful distinction we made between 'supervenience' and reductionism (bottom-up form) and supervenience and non-reductionism (the holy grail of mind–body substance dualism), we can add a further supervenience category, again reductionist but this time of the top-down form.[12] The explanation of PP_t is captured fully by 'downward conflation': the demographic structure has reduced 'agents' to '*träger* or bearers of its properties' (Archer 1995:80).

What Healy has captured is the truism of methodological individualism: no people – no society. However, both Archer (1995:143) and Bhaskar (1979:37) readily acknowledge this humble point. Supervenience in this format is quite consistent with their realist framework. Furthermore, supervenience is in fact nothing more than the aforementioned exhaustion principle; a principle that no sociologist could possibly doubt. If we are to be generous to Healy we might conclude that super-

Figure 3



venience has highlighted this truism in a way that Archer took for granted. But, against Healy's claim that supervenience captures the present-tense relation between agents and the demographic structure we ought to note that the above diagrams are in one important respect inaccurate. In the place of the predicate I_{t-1}, I ought to have introduced a new predicate, say A_{t-1}, to capture past activity dependence. This is because the physical realisers of DS_t ought to be held to be distinct from the agents who are somehow responsible for its form. As we shall see when I apply supervenience to present activity dependence the concept of 'agent' is not simply equal to 'individual'. Or, at least this is the case if we reject universal voluntarism, which, of course, we must if want to express the kind of constraints that follow from, for example, a demographic structure.

Healy may well be aware of this distinction between agent and physical being, if so, he should also be cognizant of the fact that the physical composition of the demographic structure does not capture an abstract feeling of social constraint. Supervenience, in this weak sense, describes in a most basic way a necessary (but not sufficient) condition of any circumstance we label social; without people there can be no social. There is a better way of capturing the feeling of constraint felt by present actors than simply stating a trivially true co-variance relationship that probably owes more to the nature of this so-called structure than anything special about supervenience. That is to see Archer's 'long dead' actions as non-causal Cambridge events.

Activity dependence and Cambridge dependence

As I have already noted, Healy introduced the notion of supervenience in order to clear up what he saw as a confusing use of activity dependence. In fact, as our discussion so far has suggested, Archer is largely correct when she describes both the autonomous nature of some social structures and the relationship between the present social structure and the activities of the 'long dead' (which we should not read too literally). We can also agree with Healy with respect to the supervenience relationship between the physical (human beings) and the demographic structure. Where we might disagree with him is with his claim that this kind of supervenience captures social constraint.

However, in one respect Healy has a valid point to make. Archer's notion of past activity dependence, her explanation of present social constraint, requires further elaboration. There are two reasons for this. First, talk of actions 'long ago' does not capture contemporary feelings of constraint as well as it might. Second, the causal relation that Archer is attempting to establish with respect to the actions of the 'long-dead' does not stand up to close inspection. The second point is perhaps more important than the first; if we get a good grip on it, I hope a 'feeling of constraint' will follow automatically. In order to deal with this, let me introduce an example from the philosophy of causation. Consider the following set of events:[13]

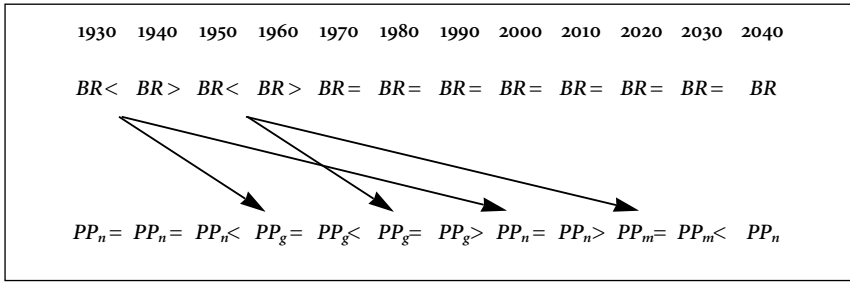
Socrates was married to Xantippe
Socrates drank hemlock and died in prison
Xantippe became a widow

One question that follows from this is: what *caused* Xantippe's widowhood? The normal response would be to claim that Socrates' death caused it. This seems to fit neatly with Humean regularity: whenever a husband dies his wife becomes a widow. However, in terms of causation we face a problem, for Socrates died in prison and Xantippe was not in the prison with him. The two events occurred in an instant and simultaneously but there is a spatial gap between the antecedent and the consequent and no causal mechanism to link the two. As Kim (1993:23) notes: 'if it is plausible to locate these events at different spatial locations, we would have to accept this case as one in which causal action is propagated instantaneously through spatial distance'. How are we to explain the event of Xantippe's widowhood? Kim argues that Xantippe's widowhood is a non-causal event that is dependent upon another event (the death of Socrates). It is, following his terminology, a 'Cambridge event', an event that 'does not represent a condition in the object to which it is attributed' (Kim 1993:29). The idea of a Cambridge event, or Cambridge change, can be traced to Peter Geech's (1969) critique of Russell's and McTaggart's definition of 'change.' A change, according to these Cambridge philosophers, can be said to have occurred to an object if there is a predicate true of it at one time but false at a later time. This is most obviously true for the above example: let the predicate *F* stand for being the wife of Socrates, let *t* stand for the moment prior to Socrates' death and t_1 stand for some time after Socrates' death. Whilst *t* is true t_1 is false. What Geech (1969:71ff) observed, by reference to a different example, was that this type of change does not represent a change to the actual object in question but a change to an object that is somehow related to it. In terms of explanation and causation we must, therefore, distinguish between what Geech called 'mere Cambridge changes' and 'real changes'.[14]

Might Archer's past 'activity dependence', with its reliance upon the 'long-dead', parallel this example? Let us return to the demographic structure. Here we need, for the sake of simplicity, to make some rather crude assumptions. First, let it be assumed that all that matters with regard to setting a pensions policy are demographic factors, i.e. the demographic is both necessary and sufficient (we know in fact that fiscal policy and life expectancy are, in the real world, equally important). We can also assume that other drains upon government spending remain constant (again extremely unrealistic). Second, assume that all people are educated to the age of 20, work between 20 and 60, thereafter retire and then die at age 80. Given these assumptions we can draw up the following diagram to demonstrate, approximately, the relationship between the birth rate and government policy.

Let *BR* stand for birth rate and *PP* stand for governments' pensions policies (where the subscript indicates normal (*n*), generous (*g*) and mean (*m*); see Figure 4).

Figure 4



As crude as this example may be there are some points that equate roughly to the problems facing governments who fail to 'save for tomorrow'. There are four key effects (highlighted by arrows) that respond to baby boom periods during the 1940s and 1960s (the above diagram simplifies by placing all births in 1940 and 1960 but the effect would be the same):

(1) The 1940 cohort join the employment market in *1960* generating increased tax revenue and allowing for a generous pensions policy.
(2) The 1960 cohort join the employment market in *1980* generating increased tax revenue and allowing for an even more generous pensions policy for twenty years (a halcyon period).
(3) The 1940 cohort leave the employment market in *2000* thus lowering tax revenue and increasing government spending on pensions. We are back to normal pensions policy for twenty years.
(4) The 1960 cohort leave the employment market in *2020* lowering tax revenue and increasing government spending on pensions. We are now faced with a mean pensions policy.

Firstly, we should note the temporal gaps between birth, employment, retirement and death and the problem this causes to those setting government policy. Similar to Socrates' death and Xantippe's widowhood, pre-birth agency (the decision of war brides and grooms) and retirement (contemporary government policy making) represent two distinct events. The latter is, in this contrived example, entirely parasitic on the former. However, the gap between agency and structural constraint is not spatial but temporal. Unless we assume that there exists a causal mechanism that is lost in this time period the two events do not fit well with the normal causal viewpoint.

Secondly, assuming that the demographic structure is indeed an independent entity, we can observe that the changes that have occurred are not 'real' changes for

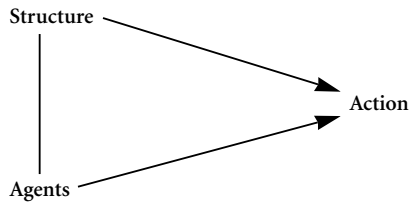
those who now receive a less generous pension. The set of people receiving a pension in the year 2000 have not changed, they worked the same number of years as the 1990 cohort, they made the same financial contribution, and they are the same age. It is not a change in pension qualifications or anything else to do with pensions that brought about this situation. Quite simply, today's pensioners are victims of a Cambridge event(s). Distinguishing between the real changes to the demographic structure and non-causal Cambridge changes helps us to understand both feelings of frustration and constraint. Today's pensioners want more and expect more because they are no different to yesterday's pensioners who received more. Governments are exasperated by their failure to implement a generous pensions policy. Perhaps, in some way, it captures Archer's (1995:165) 'human condition': 'Society is that which nobody wants, in the form in which they encounter it for it is an unintended consequence. Its constitution could be expressed as a riddle: what is it that depends on human intentionality but never conforms to their intentions?'

Let me finish this section by proposing, tentatively, that Cambridge change and Cambridge events are ubiquitous in structure–agent relations. Very often the outcome for actors attached to particular structural conditions is a feeling of dismay. One such example might be new emergent properties arising from what we can call the 'education structure'; models indicating ways of teaching pupils at all levels of schooling. Some teachers teach in approximately the same way as they taught ten years ago. Though they were then deemed to be 'good' teachers, now they are 'bad' teachers. Similarly, many of today's 'unfashionable' things might be classified as being 'left behind' by Cambridge events.

Supervenience in the present tense: the marriage structure

As we have seen, mind–body supervenience is a strange sort of concept. The role of mental phenomena is not entirely clear. Advocates wanted some sort of role for mental phenomena but ultimately they failed to obtain a meaningful one. Healy also wanted a role for supervenience, but his choice of example simply led to the trivially true statement: 'the material presence of society = persons and the (material) results of their actions' (Bhaskar 1979:37). However, I have implied that the position in sociology might be, if we so wished, different from that in the mind–body debate. Let us assume, therefore, that Healy's choice of example was ill-judged; perhaps there are situations where both the subvenient (individuals) and the supervenient (the social) are causally efficacious. If so our supervenience model might look something like Figure 5. You will notice that in order to avoid simply reiterating the exhaustion principle I have made some changes to Healy's vocabulary. Thus, instead of the term 'individual' we now have 'agents'; this is necessary in order to give our subvenient phenomenon some causal efficacy. Let us call this 'strong supervenience', as opposed to the weaker variety that deals with the individuals–society relationship.

Figure 5



We can begin by noting two important points. First, in terms of strong supervenience we must expect covariance between the emergent properties of a structure and the emergent properties of agents. As Archer (1996b:694) comments, agency is just equal to 'creativity, innovativeness and reflexivity'. So, unlike our previous examples we are not seeking a covariance between a *physical* entity and a *non-physical* entity but covariance between two *abstract* entities where both are causally efficacious (we want to avoid the vacuous phenomena problem). This is important, for Healy, (1998:509) far from supplying us with 'the minimum ontological claim necessary for a realist understanding of the structure–agent relationship', has, in fact, begged the ontological question. He frequently muddies the water by an interchangeable use of the terms 'physical' and 'agent'. This is a category error for agency entails much more than physical realisation. Only in so far as we can talk of an individual–structure–agent relationship is physical realisation of base importance. In short, we do not want to express a non-reductive physicalism for it fails to capture agency which is not physical but is a mind–structure relationship.

Second, agency is counterfactual. By definition, it invites voluntarism. As Giddens (1984:9) comments: 'Agency concerns events of which an individual is the perpetrator, in the sense that the individual could, at any phase in a given sequence of conduct, have acted differently'.

Acknowledging these two points and earlier issues leads us to conclude that strong supervenience, where both agent and structure possess causal powers, entails voluntarism. If we want this form of supervenience we must also accept that structures are *always* sufficiently malleable to afford choice to those individuals in the present who come up against them. Unfortunately, this position turns out to be far closer to Giddens's notion of the duality of structures than Archer's analytical dualism. Not only is this problematic for a theorist, like Healy, who advocates analytical dualism but it is hard to see how, in practice, covariance might be maintained in situations where constraint prevails. An example may demonstrate the kind of problem that strong supervenience encourages.

Let us assume that there is something that we can call a marriage structure. It has the following emergent properties: division of labour, prohibition of incest, formalisation of reproduction and exogenous affinity. Agency we have already

defined. If we add the two together we have an explanation as to why, say, *X* married *Y*. But in doing this we must, in order to satisfy covariance, clamp *X*'s and *Y*'s reasons for marrying to the emergent properties of the marriage structure. The two must be temporally conjoined. Looking at our marriage relations it is quite clear that a strong form of supervenience is simply unrealistic. Until quite recently brides were expected to 'love, honour, cherish and obey' their husbands. Quite understandably, many women (and men) felt that such a relationship between husband and wife was unsatisfactory – it went against their intentions and plans when marrying. For a while there was little that could be done, marriage had to be entered into, the promise had to be made and obedience for many may have been reluctantly given. During this period can we seriously maintain that the structure of marriage (the emergent property of husband–wife relations) and agency (to marry or not to marry, to create new relations, to innovate, etc.) were co-variant? In the short run there was no agency and, therefore, no covariance.

The kind of voluntarism that strong supervenience entails is precisely that which Archer (1995:65) wished to avoid: 'the central argument is that structure and agency can only be linked by examining the interplay between them over time, and that without the proper incorporation of time the problem of structure and agency can never be satisfactorily resolved'. Furthermore, she categorically states that the two must be treated distinctly in all aspects. They are 'neither co-extensive nor co-variant through time' (Archer 1995:66).[15]

Where weak supervenience simply fails to address the structure–agent issue, strong supervenience addresses it in ontological terms but misleads us into supposing that a person is always capable of reflecting and acting so as to change unwanted structural constraints. Strong supervenience is too strong.

Conclusion

The intention of those philosophers of mind who introduced the concept of supervenience into the mind–body debate was to overcome problems inherent to forms of reduction. So far it would appear that they have failed. Nevertheless, it is important to recognise, aside from their success or failure, that the structure–agent issue in sociology is a different animal. Where the subvenient physical entity in the mind–body debate plays a leading role in the explanation of qualia phenomena its role in agent–structure relations is minimal. Strictly speaking sociological explanation centres around a tripartite: physical presence, structural conditioning, agential processes. At best Healy's notion of supervenience covers physical presence; it requires us to acknowledge that without physical presence there can be no structure and no agent. For most of us this proves unproblematic. What is problematic is the application of supervenience to the structure–agent debate. Strong supervenience simply leads to universal voluntarism.

In certain social circumstances the 'agent' might well be absent but the 'individual', by definition, cannot be so. Archer's distinction between the morphogenic and the morphostatic was aimed at, respectively, the presence and absence of agents; the individual is not a part of her framework. I noted earlier that at least implicitly both Archer and Bhaskar acknowledge the exhaustion principle as a prerequisite for sociological investigation. However, there are occasions when Archer allows her realism to extend beyond this principle. For instance, in discussing knowledge, she comments (1995:144):

> **If we think of culture then all knowledge was certainly activity dependent for its genesis and elaboration. Nevertheless, once recorded (chiselled into runes or gathering dust in the British Museum), it constitutes knowledge without a current knowing subject. It is knowledge because it retains the dispositional character to be understood, though it persists unrecognized, sustaining potential powers (of contradiction and complementarity with other cultural items) which remain unexercised.**

If Archer describes such materials as real in any social sense she has contravened a principle she herself acknowledged as true. We would do better to treat such materials as real but not in any present-tense social way. If, of course, such knowledge is reapplied, if its potential is released, then it will become real in a social sense. But the introduction of weak supervenience would only help in the most trivial way.

Healy's first mistake, in my view, was to present such a cursory definition of supervenience. It should by now be clear that this concept is complex. At the very least we must talk, in the context of sociological theory, in terms of 'weak' versions and 'strong' versions of supervenience. The weak version, in the sociological tripartite, reiterates, perhaps clarifies, the exhaustion principle which can be captured in the phrase: no people, no society. The strong version of supervenience relates to agent–structure relations. We must be careful to distinguish between weak and strong versions lest we fall into the trap of making a category error; confusing (or conflating) the notion of individual with agent. I have argued that we can, we should, accept weak supervenience. However, it must be noted that its relevance to sociological investigation is minimal. I have further argued that we must reject strong supervenience as it leads to an *a priori* inclusion in our sociological explanations of voluntarism. In other words, strong supervenience outlaws the kind of social constraint that Healy intended supervenience to conceptualise.

NOTES

1. By which Archer means the form (emergent properties) of a structure is dependent upon agential actions of, in her words, the 'long dead'. She demonstrates that in many cases actors in the present are unable to change a structure's form, they are constrained by the structure.
2. Clearly, Healy did not intend to put forward a reductionist account. He states: 'If we think of societies as abstract objects made up of relations that supervene on individuals, we can

move towards a useful, non-reductive physicalism' (1998:516). The idea of physicalism in sociology is something I will return to later.

3. See Nagel (1961). Note, also, as Kim (1996) makes clear, reductionism is not necessarily a bad thing – provided we can ascertain 'bridge laws' between the two theories, it leads to a simplification of the way in which we see the world as well as allowing us to see how certain high level properties, say, temperature, are just equal to certain low level properties, say, mean kinetic energy. For a further elaboration of Nagelian reduction see note 7, below.
4. The rationale of structure–agency sociology is captured neatly by Andrew Sayer (1992:96ff) when he argues that structuralism turns actors into mere dupes, or 'automata' whilst voluntarism gives actors' accounts a false privilege. This is also Giddens's (1979) and Mouzelis's (1995) starting point, both of whom offer criticisms of voluntarism and social determinism.
5. A naturalist interpretation of 'good'. Hare asks that we suppose that there are some 'defining characteristics' of a good picture (it does not matter if this is a conjunction of characteristics, a disjunction of characteristics (but see, below, the problem of multiple realisation) or a single characteristic). Let *P* stand for the picture and *C* stand for the characteristics. Following 'naturalism' we might then say '*P* is a picture and *P* is *C*'.
6. In a similar example, where Hare is concerned with good in the moral sense, he states: 'It is that a statement of the characteristics of the man (the minor or factual premise) *together with* a specification of a standard for judging men morally (the major premise), entails a moral judgement upon him' (Hare 1952:145), emphasis in original. The 'standard for judging', it is made clear in other examples, is relative (relational) to the class of good and bad characteristics.
7. The problem is this. Our aim is to reduce the target theory (the mental) to the base theory (the physical). However, we know that our mental states, such as pain, can be realised in wildly diverse physical ways e.g. the variety of neural-biological structures in, say, humans (N_h), reptiles (N_r), molluscs (N_m), etc. (N_i). We have, therefore, a set of disjunctive realisers. Unfortunately, the obvious step of treating this set as a single kind, i.e. $\{N_h \text{ v } N_r \text{ v } N_m \text{ v } \ldots \text{ v } N_n\}$, is closed off to us because the heterogeneity of the predicates prevents Nagel reduction; the logical relation between the properties of the target theory and the base theory will not be biconditional. Multiple realisation therefore defeats psychophysical reduction.
8. Given this unfavourable outcome, Kim (1993) abandons a non-reductionist account of mind–body relations. In its place he advocates 'local physical reduction'. Multiple realisation means that the physical has to be relativised. But, Kim argues, we have overlooked the fact that if the antecedent (the physical) is heterogeneous then the consequent (the mental) must also be heterogeneous. The solution, therefore, is to relativise both neural substrates and mental phenomena producing 'structure-restricted correlations'. In this way multiple realisation becomes an obsolete term associated with what is now defined as a 'loose' concept known inaccurately, in general parlance, as 'pain'. Unfortunately, Kim does not comment on the qualitative aspect of mental phenomena.
9. The situation is not as clear cut as I have implied. For example, Archer, following Bhaskar, distinguishes between 'continuity' and 'change' (in social activity) in terms of, respectively, 'morphostasis' and 'morphogenesis'. Where these terms are defined in the following way: morphostasis refers to 'those processes in complex system-environmental exchanges which tend to preserve or maintain a system's given form, organisation or state' (Archer 1995:166); morphogenesis relates to 'those processes which tend to elaborate or change a system's given form, state or structure' (1995:66). According to Archer description and

explanation of social activity, it involves deciding, from an empirical base, between morphostasis or morphogenesis. It seems to me that we are, therefore, always faced with an *exclusive* disjunction and our explanatory schemes look much like the mind–body ontological monism and substance dualism.

10. According to Archer (1995:145) not all structures behave in this way; it is always an empirical question as to whether 'activity dependence' is past or present tense. Healy notes this point.
11. Healy is not entirely consistent on this point. Later in his article he notes 'structures may well have relational properties that are independent of agents' intentions and conceptions' (Healy 1998:519). This inconsistency follows, I believe, from a category error in his application of supervenience; see below.
12. I am not entirely convinced that we can talk of the demographic structure as a social structure. There are two reasons for this. First, it looks suspiciously like a taxonomic collective – see Harré (1981:140). Healy's introduction of supervenience highlights this weakness: the set of people who make up society (I_t) are by definition equal to DS_t. Second, even if we might permit the 'demographic' the status of 'structure', we may still be barred from granting it the status of 'social structure'.
13. I have lifted this example straight out of Kim (1993).
14. A further example of a Cambridge event is the following: let H stand for being taller than my son, let t stand for 1975 and t_1 stand for 1985. $H(x)$ was true for my father in 1975 and false ten years later. However, my father's height did not vary during this time period. The change that occurred to him was a Cambridge change. Conversely, if we let H stand for being shorter than my father and keep t and t_1 constant, we can say that a 'real' change occurred to me between these time periods. Geech argued that all changes are Cambridge changes but not all changes are real changes. Like Kim, I am making a virtue out of what Geech (1969:72) saw as an 'intuitively quite unsatisfactory' criterion for a thing having changed.
15. Archer inherited this key aspect of dualism from Lockwood (1964).

ACKNOWLEDGEMENT

This paper has benefited from helpful suggestions made by three anonymous referees.

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