A Dependent Structure of Interdependence: Structure and Agency in Relational Perspective

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Abstract
In this article I argue for a relational approach to the agency–structure problem. Structure has three dimensions from this perspective but, at its most fundamental, it is a network comprising social actors (human and corporate) and the relations connecting them. Defined thus structure has measurable properties which generate both opportunities and constraints for actors and which shape processes, such as diffusion, which affect and implicate them. Agency is integral to this model. Actors are the nodes of the network and their relations are built, maintained, modified and broken by way of their interactions. However, I argue that the human organism only fully becomes a social actor by way of interaction. In effect, both agency and structure are emergent properties of social interactions/relations which act back upon and shape those interactions/relations. In addition to resolving theoretical problems this approach has the advantage of facilitating empirical analysis of structure.

Keywords
agency, GH Mead, relational sociology, social actor, social networks, social network analysis, social structure

Introduction
Debates about structure and agency continue to rage in sociology. The problem remains unresolved, in my view, because we have failed to grasp the significance of social relations and interaction for both. This is compounded by a problematic gap between theory and empirical research. ‘Structure’ is routinely invoked in the former but mostly absent in the latter, not least because it is conceived in overly abstract terms which defy empirical
operationalisation. This encourages reification, obscuring agency, and prevents concrete analyses which might explore the interplay of structure and agency.

In this article, building upon these claims, I critique prevailing models of structure and suggest a new, relational model in which agency is central (on relational sociology see also Crossley, 2011, 2015a). Social structure, I will argue, is an always-evolving network of interaction, interdependence and relations between reflexive social actors who are formed (from biological organisms in the human case) within those relations and interactions. It involves rules (conventions and norms), negotiated within the network, and resources unevenly distributed and exchanged across it.

As a network, structure generates both opportunities and constraints for the actors who comprise its nodes, and also affects social processes, such as the diffusion of culture and resources, which play out across it. However, as nodes actors are an integral part of structure and enjoy the agency to transform it. Furthermore, as a network, structure is amenable to empirical capture, analysis and, in its localised forms, visualisation (see Figure 1).

The article has four sections. The first outlines my basic argument. The second presents a critique of models of structure which centre upon ‘roles’ and/or ‘positions’, arguing that a satisfactory model must begin with relations between social actors. In the third I consider models of structure which focus upon ‘rules’ and/or ‘resources’, arguing that these are best rendered as aspects of a network model. Agency is discussed throughout the article but this is most explicit in the final section, where I argue that critical and reflexive actors are formed within a social network (social structure) which they belong to and, by way of their interactions, vivify, reproduce and reconfigure.
Relations, Interactions, Structure

Social structure, to reiterate, comprises a network of relations and interdependence between interacting social actors. Thus conceived, it is always in-process; driven by the agency (individual and collective) of inter-actors who collectively form, reproduce and transform it. However, it presents actors with both opportunities and constraints, and affects processes, such as the diffusion of culture and resources, which play out across it.

Interaction as defined here involves two or more actors orienting and responding to one another. Some interactions are fleeting, such as strangers exchanging a smile in the street, but in other cases they are repeated and actors come to depend upon one another for goods and resources (material, symbolic and/or emotional) exchanged between them. In this case we speak of relations. Relations are lived histories of interaction; formed, transformed and sometimes terminated by way of it. However, as shared histories they shape interaction. Partners meet as known entities who ‘have history’ and depend upon one another.

Moreover, relations involve a ‘balance of power’ (Elias, 1978). Dependence generates pressure to comply with the wishes of the other, who may withhold goods and resources. Where partners depend equally upon one another the balance is equal and even where it is unequal its hold may not be strong. However, imbalances and dependence can be considerable, rendering power strong.

Interactions and relations can take many forms. Interactions might be conversations, acts of violence, sex, economic exchanges, hybrid combinations of, for example, sexual and economic exchange and so on. Similarly, relations might involve any of a range of possibilities, from casual acquaintance to slavery, and including family, employment and other such relations. Many are ‘multiplex’, with the same two actors tied in multiple ways. Colleagues may also be friends and neighbours, for example. Like interaction, moreover, relations can be negative: for example, exploitation, bullying or conflict. Indeed, as Simmel (1906, 1908/1955) observes, most relations involve a (skewed) balance of positive and negative elements.

Relations give rise to structures because they concatenate, forming networks (see also Martin, 2009). As social network analysis (SNA) demonstrates, networks are structures with variable, measurable properties which create opportunities and constraints for the actors embedded in them and impact upon the processes, such as diffusion, which play out across them (on SNA see Borgatti et al., 2013; Scott, 2000; on network effects see, for example, Bearman, 1993; Burt, 1992; Crossley, 2015b; Milroy, 1991; Padgett and Ansell, 1993; Valente, 1999). Networks have variable densities, levels of clustering and mean geodesics, for example. Cliques, factions and core–periphery divides form within them. And their nodal actors occupy different positions within them, enjoying different opportunities and constraints as a consequence.

My argument builds upon King’s (1999, 2004, 2009) critique of theories which distinguish structure, ontologically, from social actors, deeming it autonomous and, to paraphrase Archer (1995), irreducible to ‘other people’. King offers a persuasive critique and I agree with him that social relations, intersubjectively defined by actors and interactively accomplished, should be sociology’s central focus. I also accept his rebuff that ‘structure’, if anything, is ‘other people’. However, saying this is like saying that graphite is an
agglomeration of carbon atoms. It is but so is diamond and the difference between them, which gives them such contrasting properties, is the pattern of bonds between their atoms. Likewise in society; not only are actors connected and shaped by many different types of relations but the ways in which these relations concatenate gives rise to different structures, with different effects.

A society is not an aggregate of actors because actors interact, forging relations of interdependence. However, it is not an aggregate of actors-and-relations either. It is a structure which might be either diamond or graphite, so to speak, depending upon the pattern of its constitutive relations. Structure is not autonomous in this conception. It is a patterning of relations between interdependent actors; a dependent structure of interdependencies. It is sociologically important because its constitutive patterns affect both the actors embedded in it and the social processes which play out across it.

King (1999) hints at this possibility, gesturing towards Elias’ (1978) ‘figurations’ and often using the term ‘network’, but he does not elaborate and concludes that ‘structure’ is the wrong word to capture this. I suggest that it is the right word. In the natural sciences a ‘structure’ is a pattern of relations between parts and so it was in classical sociology; in Durkheim’s (1893/1964) reflections on ‘mechanistic’ and ‘organic’ patterns of bonding, Marx’s (1939/1973) ‘relations of production’, and Simmel’s (1902, 1908/1955) investigations of ‘thirds’ and ‘intersecting social circles’. This understanding of structure is largely forgotten in contemporary sociology. We need to revive it.

For purposes of empirical research, we can only ever analyse a small slice or sample of structure. However, we can analyre such slices, using SNA, and this is important. For illustrative purposes I have visualised a small hypothetical slice of structure in Figure 1. Actors are represented by shapes (‘vertices’), with different shapes and colours capturing different categorical attributes (e.g. gender and ethnicity) and size representing a continuous attribute such as income (any number of attributes can be included for purposes of analysis). Relations are represented by connecting lines (‘edges’) and again variations (e.g. type, intensity and direction)1 can be factored into analysis.

Such graphs can be misleading. SNA draws upon a different (relational) conception of space to scatterplots. The vertical/horizontal placement of nodes has no meaning, for example, and neither does the size of the gap between them. However, graphs reveal certain aspects of structure, providing a potential starting point for the more extensive, rigorous and precise analysis which SNA affords. For example, we might spot very highly connected nodes (‘hubs’), clusters of densely connected nodes (potential ‘cliques’) or ‘structural holes’ (Burt, 1992) which fragment the network into discrete parts (‘components’).

SNA often requires embellishment by other sociological research methods if it is to fully serve sociological ends (Bellotti, 2014; Crossley, 2021). Furthermore, its use must be framed by a relational theoretical understanding if potential problems (including under-emphasis of agency) are to be avoided (Emirbayer and Goodwin, 1994). However, it provides an indispensable baseline upon which to build.

Almost every human being on the planet is linked through a chain of relations (a ‘path’), forming one vast network ‘component’;2 a single, huge and hugely complex social structure. However, as noted, we can abstract slices and samples of this network for analysis. Moreover, vastness and complexity do not prevent structure from having
significant effects, as the global spread of COVID-19 by way of inter-human contact, and particularly the speed and extent of that spread, demonstrate. Global pandemics show that goods/bads can diffuse through huge networks with great speed and effectiveness, and the reason, as Milgram (1967) argued in the 1960s, hinges upon structure. In research predating both the internet and routine air travel, Milgram found that randomly selected pairs of individuals from anywhere in the USA were linked, on average, by a path of merely five intermediaries (a geodesic distance of ‘six degrees’). Big networks can form ‘small worlds’ (see Schnettler, 2009 for a review of contemporary studies).

Milgram’s social scientific work has proved inspirational to natural scientists researching complex systems (Crossley, 2008). Many had assumed that systems involving hundreds of millions of nodes would involve huge geodesic distances, rendering their coordination mysterious. Discovering that these systems were ‘small worlds’ helped to solve the mystery. It showed that communication and resources did not necessarily have far to travel, even in massive networks (Crossley, 2008; Newman et al., 2006; Watts, 1999). This insight applies to social structure and underlines the importance of a proper understanding, theoretical and empirical, of its networked character (Crossley, 2008).

The flip side of the autonomous conception of structure, to return to King’s (2009) critique, is a problematically individualised conception of the actor. Separating structure from the agent separates actors from their embedding in structure; a tendency most pronounced in Archer’s (1995) work. My relational approach avoids this pitfall too, chiefly through appropriation of the work of Mead (1967). His discussion of ‘mind’ and ‘self’ affords a strong conception of agency and his observation that both are formed within social relations and interaction makes that conception relational, embedding actors, irreducibly, within structure. The human organism becomes a social actor, acquiring key agentic dispositions, from basic embodied competences through to a capacity for reflexivity and critical reflection, by participating in social relations. Moreover, Mead’s insistence that the formation of mind and self is transformative of social relations and the wider society they constitute both further emphasises the co-dependence of agency and structure, and reveals the active role of agency within structure.

I return to Mead. Presently it is important to add that, in addition to human actors, my conception of social structure includes ‘corporate actors’; that is, organisations, such as governments, firms and trades unions, staffed by human actors who interact and form relations within them, whose practices generate decisions and actions which are irreducible to the individual decisions and actions of those human actors, and whose resources, authority and legal status are similarly irreducible (Coleman, 1990; Hindess, 1988). Corporate actors interact and form relations both with one another and with human actors, and these interactions and relations form an important part of social structure. However, relations involving corporate actors are of a second order because the existence of such actors is dependent upon human interactions and relations. Networks involving corporate actors are nested within and formed by way of networks of human actors in a multi-level configuration. To simplify for illustrative purposes, nations and multinational corporations are nodes in a network forged by their various agreements, treaties and transactions, but each also comprises a network in its own right, involving human actors and/or perhaps smaller corporate actors which in turn comprise human networks. Human-to-human networks form a baseline structure upon which secondary configurations involving corporate actors are built.
Roles and Positions

My conception of structure begins with relations between human actors. This starting point is rejected in some theories on the grounds that relations between ‘roles’ and/or ‘positions’ constitute a ‘more sociological’ focus. In his classic essay on structure, Radcliffe-Brown (1940) vacillates between individual and role relations but with Nadel (1957) the anthropological focus shifted decidedly towards the latter. Likewise in structuration theory; Giddens (1984) does not include relations in his definition of ‘structure’ (see below) but they are central to his ‘systems’, where they are construed as relations between roles and positions. The same is true in the critical realism of Bhaskar (1979) and Archer (1995), and in Bourdieu (1984). All explicitly exclude actor–actor relations from their definition of structure, focusing exclusively upon role and/or positional relations.

I agree that networks of roles and positions are important but it is my contention that, like corporate actors, they belong to a second order of structure, nested within networks of human actors who play/occupy roles/positions. Failure to track back from networks of roles/positions to networks of human actors results in a fragmented representation of structure. For example, it is relatively easy to specify relations between domestic roles (e.g. mum, dad, daughter, son) and between work roles (e.g. employer, employee), but there are no formal role relations across these two domains; between ‘mum’ and ‘employer’, for example. An analysis of role relations therefore tends to fragment the social world into separate domains (e.g. domestic, work, etc.). Furthermore, there are often no role relations across units within a domain (e.g. between one household and another), again painting a fragmented picture of the social world as a set of discrete units (e.g. separate households). This problem is compounded by the fluidity and complexity of ‘role relations’ in contemporary societies. The schema of domestic role relations invoked above suffices for purposes of illustration but it does not begin to capture the complexity of actual domestic lives, and it is questionable whether any schema of ‘role relations’ could.

We can overcome these problems by focusing upon multiplex social relations between concrete social actors. I play many roles, for example, and have many different types of relation to different (and sometimes the same) others. As a consequence, I link up multiple domains. As both a dad and an employee, for example, I link my family and my employer. Similarly, my relations with colleagues constitute bridges between members of our respective households. Social structure, as Simmel (1908/1955) notes, comprises intersecting social circles, and it is actors (not roles) who intersect and connect such circles.

The concept of ‘position’ is more vague but if it refers to statuses such as race, class and gender the same problem emerges. Classes are related to one another but class positions have no formal relation to gender positions, which have no formal relation to racial positions and so on. Again, a focus on actors avoids this problem because actors juggle and thereby link multiple positions. As a white, middle-aged, middle-class, heterosexual man, for example, I intersect multiple status groups, conjoining and bringing them into play simultaneously. While roles and positions are important, therefore, the actors who ‘do’ them are a better starting point for a conception of social structure.
In addition to these problems, theorising structure in terms of roles or positions encourages a reified conception. Structure is envisaged as external to actors who merely occupy its positions and roles, as one might occupy a building. Moreover, while this does not preclude the possibility of change it suggests an implausible image of actors transforming structure from without, failing to recognise that structure is always in-process in virtue of the interactions of its nodal actors.

I return to positions and their intersections below. I will conclude this section, however, by noting the shift in theories of gender, race and so on, away from a conception of pre-existing roles and positions towards a focus on the ‘doing’ of difference in situ (West and Fenstermaker, 1995; West and Zimmerman, 1987). In this context too ‘role’ and ‘position’ have proven obfuscat ing, at least as starting points, and concrete interaction has been deemed more useful.

**The Three Rs of Social Structure**

Definitions of social structure vary (Blau, 1976; Lopez and Scott, 2000; Martin, 2009; Wellman and Berkowitz, 1997). Most accounts agree that structures are relatively enduring patterns involving an arrangement of ‘parts’ but beyond that they diverge. We can capture some of this divergence by reference to what I call the ‘three Rs’ of social structure: *rules, resources* and *relations*. Some concepts of structure centre upon regularities in social practices and the *rules* (or norms/conventions/habitus) said to explain them. Others centre upon *resources*, including the prestige attaching to status, and more particularly their distribution. The third R is *relations*. As noted above, I understand this, in the first instance, to mean relations between social actors.

Each of the three Rs is an important dimension of social structure. However, it is my contention that interaction and social relations are the thread which holds them together and which make the structure which they form properly ‘social’. We can illustrate this in relation to rules via a brief discussion of Giddens’ and Bourdieu’s respective conceptions of social structure.

Both writers arrive at their conception of structure via a critique of structuralism, whose model is linguistic, and each retains a linguistic influence. Structure is virtual for Giddens (1979, 1984), comprising ‘rules and resources’ which actors internalise and which regulate their practices. Practices are *structured by* rules and resources. Bourdieu (1990) criticises rule-based theories but his definition of habitus, as ‘structured structures’ which act as ‘structuring structures’, does similar work (Bourdieu, 1992: 53). Like Giddens’ ‘rules’, Bourdieu’s ‘habitus’ is an internalised mechanism which structures practice. In both cases actors internalise structures which they subsequently externalise in an iterative process.

This is a peculiarly asocial definition, as Archer (1995) notes, because it locates structure, qua rules or habitus, *within discrete individual actors*. I suggest rather that the regularities in social practice that Giddens and Bourdieu seek to capture exist between actors. They are regularities in interaction, centred upon the need for actors to *coordinate* their lives and actions. The work of coordination is ongoing. Actors constantly (re)negotiate aspects of their collaborative activities. However, as Lewis (1969), in a major philosophical study of convention, suggests, solutions to ‘coordination problems’ tend to
endure, giving rise to regularities such as those observed by Giddens and Bourdieu. This durability rests, in some part, upon habituation by actors but what endures is an ‘agreement’ (often tacit and in some cases achieved through coercion) between actors rather than merely a template for individual action within each actor. Moreover, to reiterate, interaction gives rise to a constant demand for renegotiation and change, effecting a permanent evolution of structure. Languages evolve, for example, as a consequence of innovations occasioned by and achieved within linguistic interaction, which diffuse, by way of further interaction, through a network of language users (Milroy, 1991).

A focus on interaction and the negotiation and agreement which underpin structure exorcises any vestiges of ‘cultural dopery’ in the theory of social structure. ‘Agency’, for Giddens (1979), entails that an actor could have acted differently but it is far from clear how his or Bourdieu’s actors could. Both posit a circular relation between agency and structure; actors internalise structures, in the form of rules or habitus, and then externalise them in actions which contribute to their reproduction. Both claim that structures are sometimes ‘coherently deformed’ by actors in the course of their execution and they insist that internalised structures constitute forms of competence which empower actors, enhancing agency. However, the aforementioned circularity minimises any sense that actors could act differently (see also Sewell, 1992). Emphasising interaction and the coordination problems (not to mention competition and conflict) it entails, by contrast, emphasises agency. Actors must make their interactions work, often thinking on their feet and negotiating to achieve coordination with one another.

Resources too entail interaction and relations. Some have a use value which actors may enjoy alone. However, it is more often their exchange value that is of sociological interest; a value dependent upon interaction (i.e. exchange). Moreover, even those resources desired for their use value are typically procured through exchange. And most have a symbolic value dependent upon agreement across a network of users. Following Mead (1967), for example, money is a ‘significant symbol’ whose value depends upon ‘agreement’ between actors (see also Simmel, 1900/1990). And as Elias (1984) observes, this agreement took some time to stick within and diffuse throughout Western Europe initially, frequently breaking down.

Where resources are equated with ‘power’ and ‘domination’, furthermore, this again presupposes concrete interaction and relations. Resources only afford power where they are deployed in interaction, and it only becomes meaningful to speak of domination where one party can command compliance to their demands by either threatening to withhold their goods or by mobilising their resources to inflict sanctions.

I suggested above that resources typically enter into the concept of structure by way of their distribution. Representations of society as, for example, a pyramid, capture this; resource distributions lend society a shape. The distribution of resources is important and belongs to a comprehensive model of social structure. However, as Bourdieu’s (1984) model of ‘social space’ (a different model of social structure also found in his work) illustrates, it needs to be built into a network model if problematic consequences are to be avoided.

Bourdieu visualises social space as a scatterplot whose data points are individuals in a society. The vertical dimension of the plot captures an actor’s cumulative volume of (economic and cultural) capital; the richer they are, the higher up they are. The horizontal
dimension captures their ratio of economic to cultural capital; those whose wealth is primarily cultural are located to one side, those whose wealth is primarily economic to the other. Though interesting, this account paints an atomised and inanimate picture of social structure as, to use the expression of the statisticians who worked with Bourdieu, a ‘cloud of individuals’ (Le Roux and Rouanet, 2010: 2). Actors are represented as discrete points and there is no sense of the interactions in which resources are exchanged and acquire value.

Bourdieu claims that this model captures social relations but he defines relations in terms of social distance. The ‘relation’ between any two actors is the difference between their respective volumes and ratios of capital. Some, for example, are in a ‘richer-than’ relation to others. This argument is flawed. Social distance is important and affects the likelihood of particular types of relation but it is not a relation in itself because it involves no connection between parties and no mechanism by which one may affect the other. Parties are entirely independent of one another. Living 50 miles away from somebody is not being in a relationship with them and neither, for the same reason, is being at a social distance from them. Distance is not connection. A relation is a connection which engenders interdependence.

Bourdieu (1985, 1987) acknowledges this in his work on class formation. Individuals who have a similar volume and composition of capital and who therefore cluster in social space form a class, he argues, but only ‘on paper’. To become a historically effective class they must interact and associate with one another, forming ties and thereby achieving a degree of group cohesion and coordination. Resource inequalities do not in themselves constitute classes in the absence of interaction between similarly resourced individuals and the ‘groupness’ which such interactions generate. He makes a similar case in his work on social capital (Bourdieu, 1980). Much of the advantage of social elites derives from their connections to one another, forged at elite events, he argues; the opportunities they create for one another and resources they lend and borrow. These are important points and I agree but Bourdieu does not elaborate further and, in many places, dismisses such ‘empirical relations’, omitting them in his various models of structure and social space (Crossley, 2011). Furthermore, it is important to note that while actors make new ties and break old ones they are always-already enmeshed in networks, never suspended in a ‘cloud’ of atomised individuals.

A further difficulty of models which focus upon resources independently of relations is that they typically capture some divides at the expense of others. Bourdieu’s ‘social space’ captures economic and cultural inequalities, which he links to social class, for example, but not ethnicity or sexuality. One solution to this would be to add further dimensions to social space to capture these neglected divisions. Blau (1977) does this in a model of social space which predates Bourdieu’s. However, this approach is unnecessarily convoluted. If we begin with a network of actors, it is possible to capture the combined structuring effect of any number of social divisions comprehensively and concisely.

Social division and group formation are captured within networks via the concept of status homophily (I bracket the related and important concept of value homophily for present purposes) (Lazarsfeld and Merton, 1964). Status homophily suggests that a tie between any two actors is more likely, ceteris paribus, when they either share one or
more statuses (e.g. ethnicity, gender or sexuality) or they are more similar in terms of such factors as income, education, age and so on. This may be a consequence of the agency of actors who, for example, harbour prejudices regarding out-groups, find in-group interaction easier or who seek to affirm their status by way of their associations. Indeed, homophilous bonding may be an element in the ‘doing [of] difference’ theorised by West and Fenstermaker (1995). For example, ‘doing’ middle-class membership and rendering it accountable may entail mixing with others who are doing likewise. However, homophily may be an effect of factors outside of or only indirectly connected to actors’ choices, such as the impact of places of residence and work upon the likelihood of meeting, and group size (on the latter see Blau, 1977). Numerous studies, including Milgram’s (1967) aforementioned celebrated study, point to the impact of status homophily on network structure (see McPherson et al., 2001 for a review). Milgram found that social distance and in particular ‘the race divide’ had a large negative effect on tie formation; much larger than geographical distance (see also Korte and Milgram, 1970; Travers and Milgram, 1969).

Status homophily might give rise to groupings and divisions akin to those described by Bourdieu (and not only in relation to class) and SNA affords ways of capturing and measuring this. If we aggregate nodes according to group, for example, we can compare the densities of in- and out-group relations, deriving measures of both intra-group cohesion and inter-group segregation. Alternatively, adopting a more inductive approach, we might seek out clusters and divides within our network first and then explore their demographic profile.

This is useful but begs the question of intersectionality. Actors have multiple statuses and this complicates the issue of groups. Again, however, SNA affords empirical means for approaching this issue. Quantitatively, using methods akin to logistic regression, we can measure and statistically model the simultaneous impact of multiple statuses upon tie formation, assessing their relative importance and allowing for potentially confounding interactions between them. Qualitatively, we can observe the (potentially different) strategies actors employ to navigate their intersections and the constraints attaching to them. Do they, for example, belong to multiple circles, each homophilous in relation to one of their statuses? Or do they tend only to associate with others who share all of their key statuses, and if so, which statuses are key?

These patterns are important because clustering of ties affects the diffusion of resources, information and culture. For example, insofar as we observe homogeneity within the practices and attitudes of particular status groups this is because their members tend disproportionately to interact with and influence one another (McPherson, 2004). Differences across status groups, conversely, reflect a relative lack of meaningful engagement and influence between their members. Of course, resources and other circumstances play a role too but how actors respond to their circumstances is decided between them, in interaction, and for this reason the practices and preferences characteristic of a group may change without any corresponding change in their resources or circumstances. Again, this is complicated by intersectionality but in ways which the abovementioned network-analytic approaches allow us to explore. By exploring patterns of connection, in conjunction with a good qualitative understanding of collective identity, we can assess the likelihood of particular influences crossing specific status divides.
Agents-in-Relation

Because it comprises actors and their interactions and relations, structure incorporates agency at its heart. Moreover, as Mead (1967) argues, much human interaction involves ‘significant symbols’, which enhance reflexive agency. Communication is common across the animal kingdom, he notes, but most animals are not aware that (or what) they are communicating. Their gestures signal to and influence the behaviour of other animals but they are not conscious of these gestures. Furthermore, there is an asymmetry of meaning. For example, a gesture which expresses and thereby means ‘anger’ for its sender might engender and thus mean ‘fear’ for its recipient. Significant symbols are different and reflect a unique adaptation. When humans speak or write we perceive our own communicative gestures, thereby becoming reflexively aware of them. Moreover, although there may be asymmetries (e.g. you give the order, I follow it) and notwithstanding the possibility of miscommunication, significant symbols have a conventional and therefore agreed meaning. This transforms interaction according to Mead, affording actors greater control over it and enabling better coordination. Agency is increased.

Language is the obvious example of significant symbols but, as noted above, Mead also cites money and the concept extends to cover the range of symbolic phenomena found in human society, including the physical differences (e.g. anatomy and skin colour) which take on meaning and value in the ‘doing’ of ‘difference’, and the abovementioned status distinctions and identities (West and Fenstermaker, 1995). Indeed, significant symbols bring many of our relations under reflexive control. When two actors are ‘friends’, for example, they enjoy a bond which they themselves understand as friendship and which they reflexively manage accordingly, perhaps orienting to and negotiating ‘rules’ which stipulate how friends ought to behave to one another.

Mead makes a further important contribution when he argues that ‘mind’ and ‘self’ are formed within networks of interaction and relations (i.e. social structure) which they sustain and have the capacity to transform. Society is not formed by a coming together of pre-existing social actors, for Mead, as individualist philosophies suggest. Individual actors do not pre-exist society. Collective life predated and influenced our evolution into human form (Wilson, 2012), and the human organism which this evolutionary process has shaped requires extensive nurture within social networks if it is to acquire even basic characteristic actor attributes and competences. Indeed, it requires years of nurture if it is even to survive (biologically). Actors and agency are formed within the very interactions and relations that form structure; and they are formed in a way which both affects structure and allows them to make a difference to it.

‘Mind’, as conceptualised by Mead, is the ongoing process whereby human organisms achieve reflexive awareness and control over their interactions and relations. It comprises reflective thinking and is the combined effect of two key factors. First, the use of language. Language is an emergent product of interaction within networks, according to Mead, and its use transforms the organism. Through speech and writing actors form thoughts and become aware of those thoughts, thereby entering into a reflexive relationship with themselves.

The second key factor in the development of mind is role-taking. Mead conceives of thinking as conversation. To think is to converse either with someone else or oneself and
we learn how to do the latter by way of the former. Having participated in external conversations we internalise the conversational form: for example, an idea is expressed, responded to, the response is responded to and so on. Moreover, we perceive and respond to our own ideas in these conversations by taking an alternative perspective upon them. We anticipate likely criticisms, thrashing out differences and pursuing claim and counter-claim. We do this, Mead continues, by projecting ourselves, imaginatively, into ‘the role of the other’; a habit acquired in childhood play and games. We anticipate what others might say, drawing upon an empathy first cultivated by pretending to be others as children. The ‘other’ whose role we assume in these conversations might be a specific person with whom we are acquainted from one of the social circles in which we are involved; for example, a friend, colleague or relative. However, we often assume the role of what Mead calls ‘generalised others’; that is, roles representing perspectives held in common in one or more of our social circles.

Critics of Mead sometimes represent this as a process of social control: the actor anticipates a negative response and ‘corrects’ themselves. This sometimes happens. However, control is only one possibility for Mead. Conversations, both internal and external, may take a number of different paths. The actor may acquiesce for fear of sanctions. But they may acquiesce because persuaded by another’s arguments (imagined or real). They may devise a way of pursuing their plan covertly, orienting strategically to the other’s anticipated response. Alternatively, however, they may tighten their argument by way of internal conversation and challenge ‘the other’: ‘we must not forget this other capacity, that of replying to the community and insisting on the gesture of the community changing. . . . We are engaged in a conversation’ (Mead, 1967: 168). The strength of Mead’s conception of agency is apparent here, as is its relational nature. The actor is able to anticipate the likely responses of others, to deliberate about the strengths and weaknesses of different perspectives, and if they conclude that they are right, to argue their case, calling for social change. Mind is a critical, reflexive, emergent property of social interaction. And importantly, for purposes of the structure/agency debate, it puts agency at the heart of structure. The interactions and relations which form structure are mindful.

Mead’s account of ‘mind’ implicates ‘self’ (i.e. self-consciousness), which he again understands as a reflexive, relational process involving role-taking. In the classic Cartesian conception consciousness is a substance, akin to but different from matter, and a private domain; an inner theatre of experience closed off from the ‘external’ world (Descartes, 1641/1969). Consequently, human actors, qua consciousness, are deemed detached both from one another and the material world. Mead suggests a radical, relational alternative. Initially perceptual, he argues, consciousness emerges from our sensuous, embodied interaction with the world around us and comprises a relation to objects in that world. To be conscious is to be conscious-of something and thereby connected to it. As a consequence of my physical, perceptual interaction with it, for example, I am currently conscious-of and connected to my laptop. Myself and the laptop are connected by a consciousness formed between and involving each of us.

Defined thus, and again departing from the Cartesian model, consciousness is not initially conscious of itself. The organism experiences objects in the world around it but is its own blind spot. Echoing both Hegel (1807/1979) and Smith (1759/2000), Mead
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(1967: 138) argues that the actor can only become fully conscious of themselves by assuming the role of the other:

The individual experiences himself as such, not directly, but only indirectly, from the particular standpoints of other individual members of the same social group, or from the generalised standpoint of the social group as a whole . . . he becomes an object to himself only by taking the attitudes of other individuals towards himself.

This is partly a matter of decentring. Achieving recognition of other perspectives allows the actor to experience their own perspective as a perspective, distinct both from those of others and from the world itself. As Schutz (1966) argues, there can be no sense of self in the absence of a sense of “not self” and more particularly of other selves who enjoy a different perspective. In addition, however, the actor becomes an object within their own experience by recognising that they are an object in the experience of others, and by imaginatively simulating this experience. This can engender a fragmented sense of self:

We carry a whole series of different relationships to different people. We are one thing to one man and another thing to another . . . We divide ourselves up in all sorts of different selves . . . A multiple personality is in a certain sense normal. (Mead, 1967: 142)

It may be difficult for actors to integrate these multiple selves into a unified whole where they belong to conflicting social circles, Mead claims, but it is usually possible and we do so by means of internal conversation. Moreover, anticipating Goffman (1959), he discusses the way in which actors present their self in interaction, thereby managing their interactions and relations along with their public ‘face(s)’.

This increases reflexivity in relations and interactions. Self and social relations are two sides of a coin for Mead and both must be reflexively managed and maintained by actors. Awareness of self, derived from relations with others, transforms our relations with others and in doing so transforms structure. The interactions and relations which form social structure are not only mindful but also ‘self-ed’.

Underlying self and relationship work, for Mead, is a desire for recognition – a concept he takes from Hegel (1807/1979). Aware that theirs is but one perspective on the world and of their existence, qua object, within the perspectives of others, actors desire confirmation and acknowledgement from others. This could result in relations of mutual recognition and there is a normative aspect to Mead’s thought which evaluates social relations according to the extent to which this happens. Moreover, he observes that the desire for recognition can encourage conformity to emergent norms and values, thereby contributing to social order. However, like Hegel, he believes that the desire for recognition, if not channelled, often manifests as a desire for superiority, resulting in potentially harmful status contests and bloody conflicts at both individual and collective levels.

Archer (2000, 2003) engages with Mead’s ‘internal conversation’ in her account of agency. However, there is a crucial difference between our positions. As noted earlier, she separates structure and agency, ontologically, effectively decoupling internal conversation from structure. My contention, by contrast, is that ‘mind’ and ‘self’ form within the interactions and relations constitutive of social structure and transform that structure
from within by rendering its constitutive interactions and relations reflexive, mindful and ‘self-ed’. In becoming mindful and self-conscious human organisms thereby become capable of qualitatively different types of interaction and relation. This is not to suggest that actors see the whole picture of structure or even their own position within it. ‘Mind’ and ‘self’ are both fallible and much is beyond them. My point, rather, is that the agency which actors exercise, their ‘mind’ and ‘self’, is not outside of structure but rather emerges within the very interactions and relations constitutive of structure. And this makes a difference to structure, not least in the potential for change, big and small, it engenders.

**Conclusion**

A society is not an aggregate of social actors. Actors interact and form relations, and their interactions and relations form a structure which creates opportunities and constraints for them, affecting processes, such as the diffusion of culture, that play out between them. Relations and interactions make society ‘more than’ the actors who comprise its parts. ‘Social structure’ has been defined in many ways but if it is to mean anything, in my view, it must centre upon this structure of relations. In the absence of interaction and concrete relations between social actors there would be no society and no structure to talk about.

However, there would there be no social actors either. The human organism, whose evolution itself bears the stamp of collective life (Wilson, 2012), is helpless at birth and only becomes a social actor by way of interaction, acquiring skills and dispositions which enable agency and reflexivity. This transforms the interactions and relations in which actors engage, and thereby transforms structure. In contrast to the societies of other species, the interactions and relations which connect the members of human societies, mediated by significant symbols, are reflexive, mindful and informed by the self-consciousness of those members. They therefore involve a greater level of agency. The emergence of ‘mind’ and ‘self’ reconfigures relations and interactions, embedding reflexive agency in the heart of structure. Structure and agency are two sides of a coin, each formed by way of interaction and the more enduring relations its gives rise to.

Relations and interactions vary, of course, taking different forms, which those party to them are reflexively aware of and seek to manage with varying degrees of success. We can capture something of these variations and of the power imbalances which afford some greater control than others, by focusing upon what, for present purposes, I will continue to gloss as ‘rules’ and ‘resources’. Different types of relation follow different rules and involve the exchange of different types of resources.

Rules and resources have each served as a principle focus in some accounts of structure. In this article I have suggested that they are dimensions of structure, alongside relations, and I have suggested that they are best conceived in terms of the relations and interactions in which they are embedded. Rules and resources do not exist in the abstract, even if we might theorise them as such. They are dimensions of our relational lives and the relational structures those lives involve; part of the network which is social structure.

The various dimensions of structure and important roles of mind, self and significant symbols point to the need for a mixed-method approach to the empirical investigation of
these matters. If ‘structure’ is to remain a useful concept, however, and mystification and
reification are to be avoided, then it must be pinned down empirically. To this end the
possibility of capturing, mapping and analysing patterns of interaction and relations
afforded by SNA is invaluable (alongside other methods with other uses and strengths
(Bellotti, 2014; Crossley, 2021)). The global population is too big and the relations and
types of relation between its members too numerous to be captured in their entirety but
using SNA we can capture significant slices of this social structure, bridging the gap
between our theoretical interests and our empirical research.

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Notes
1. Some relations are ‘directed’ in the sense that they are not necessarily reciprocated. A may
   ‘like’ B, for example, while B does not ‘like’ A.
2. Networks involve ‘paths’. If A is connected to B, who is connected to C, who is connected to
   D, for example, then A and D are linked by a path. A ‘component’ is a set of nodes, each of
   whom is linked to each of the others by a path.
3. ‘Geodesic distance’ is measured in relationships. If two actors are linked by a path involving
   five intermediaries that path will involve six relationships or (to use the lingo) ‘six degrees’.

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