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Convention and exemplars:
an alternative conceptual framework

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Introduction

A focus on convention in social theory has increased markedly in recent years and it has taken on a central role in a number of social scientific theories. In economics, convention is the central category of the économie des conventions [EC from now on] (e.g. Dupuy et al., 1989) and a significant concept within game theory (Cubbitt & Sugden, 2003; Young, 1996). Convention has also been discussed in some detail within sociology by Margaret Gilbert (1989, 1996) and in law by Andrei Marmor (2006). Almost all of the contributors to the modern debate recognise a debt to the pioneering work of the analytical philosopher David Lewis (1969), whose co-ordination game approach to convention is a central reference for the majority of modern contributions.

The turn to convention represents an attempt to address a fundamental concern of the social sciences. Coming from diverse disciplines, the aforementioned authors share a desire to understand the *normativity of human practices*: how they are shaped and conditioned by judgments of correctness that are both contingent (on a particular history) and arbitrary (in the sense that there are other conceivable and workable standards of correctness). In the case of the EC and game theory, this can be seen as a challenge to the abstract optimising behaviour favoured by neoclassical theorists in economics. In sociology and law, convention is often invoked in contrast to the more entrenched traditional notions such as social rules and norms.

This paper proposes an alternative reading of what conventions are and how they might be used by social scientists in theoretical and empirical work. I do not propose a theory, but rather a meta-theoretical perspective that could be used to inform and compliment existing theories. In the first section of the paper, I trace the modern conception of convention to two characterisations offered by David Hume in *The Treatise on Human Nature* (1739). I claim that Hume's two notions of convention provide the basic intuition behind the majority of modern approaches. The second section highlights an important and often implicit characteristic that most theories of convention share: the desire to explain the normativity of conventional practices has led commentators to characterise convention as a sub-category of social rules. I go on to argue that the Wittgensteinian literature on rule-following undermines this strategy and that rules cannot provide the normative guidance required of them by social theorists. The third section describes a promising alternative. I argue that the notion of exemplar, first proposed by Thomas Kuhn in the history and philosophy of science, can be used to clarify and advance the study of convention. The paper concludes with a illustration of how this alternative framework can be used by social scientists.

I. Limit cases

The earliest and arguably still the most influential discussion of convention is due to David Hume. According to Hume, conventions are a response to the more general problem of social order described by contemporary social contract theorists. Following the contract theorists, Hume accepted that the natural condition of man was essentially asocial and conflictual, social order was an

achievement. In the *Treatise*, he proposed a novel solution to the problem of social order as presented by his contemporaries: convention.

For Hume conventions were essential in order to establish the rules and regulations of a stable society. Moreover, they were 'artificial' (the product of human judgment) implying that they were neither natural nor inevitable. He contrasted conventions with natural law, a distinction that has survived in modern analyses and fits common usage of the term. Thus, according to Hume, conventions express the *contingency*[1] of social relations but they also express their *arbitrariness*[2]. This can be demonstrated by taking the example of eating habits. The etiquette surrounding eating behaviour is usually recognised to be conventional, but what types of organic materials we eat do not appear to be a matter of convention. I could eat only marbles, or arsenic tablets, but my participation in eating rituals would certainly be cut short by an untimely death. The range of materials that I can consume is both a function of availability in my environment and the limitations of my body and digestive system. The external and internal conditions that prescribe and limit my eating habits are said to be governed by laws of biology. These laws of nature are in turn assumed to be beyond my direct control or manipulation. In contrast, according to Hume and other students of conventions, they are phenomena that are capricious and potentially subject to manipulation or change.

Hume went further than simply stating that conventions were contingent and arbitrary. He proposed two distinct conceptions of convention, providing examples to illustrate his point. The two types of convention proposed by Hume can be summarised as follows:

Convention₁

A reciprocal agreement to instantiate and perpetuate a social practice within a group of individuals who each stand to gain from it. Each individual adopts a principle that regulates his behaviour towards his companions. Their mutual interdependence is expressed linguistically by all parties. This is Hume's classic example of how the stability of property rights could have arisen without a social contract:

> This can be done after no other manner, than by a convention enter'd into by all the members of the society to bestow stability on the possession of those external goods, and leave every one in the peaceable enjoyment of what he may acquire by his fortune and industry. By this means, every one knows what he may safely possess; and the passions are restrain'd in their partial and contradictory motions. (Hume, 1739: 489)

This first type of convention is the focus of sustained elaboration in Margaret Gilbert's 'agreement-theory'.

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[1] The presence of a convention in a society is both the product and the reminder of the specific series of contingent events that led to its establishment.

[2] This is because any contingent series of events may unfold in perfect consistency with a set of universal laws, but it would not qualify as 'artificial' in Hume's sense. In this stronger sense, conventions imply the idea of a range of possible outcomes, none of which is privileged by an implicit teleology and none of which is the outcome of the operation of a law.

Convention₂

On the next page, he suggested a different interpretation. Conventions can also exist without agreement, through the unthinking co-ordination of behaviour. In this case a social practice is adopted by a group through the gradual mimetic adjustments of its members and the formation of expectations of conformity. All this occurs without linguistic signalling or common principles. This type of convention is illustrated by Hume's example of the rowers who adjust their behaviour in order to harmonise their actions and stabilise their boat, here a convention:

> ... arises gradually, and acquires force by a slow progression, and by our repeated experience of the inconveniences of transgressing it. (Hume, ibid: 490)

> The second type of convention was resurrected by David Lewis and is the inspiration for modern game theoretic theories of convention.

This Humean distinction goes some way towards reflecting the vagueness of application of the term 'convention' outside social theory as well. In our common speech. We speak of international banking conventions (SWIFT) as well as conventions of etiquette (shaking hands). This duality makes the task of building a satisfactory account particularly difficult: a theoretical model is likely to restrict the wide natural usage of the term and thus could fail to satisfy our linguistic intuitions. It is perhaps for this reason that several recent analyses of conventions have come close to replicating Hume's distinction often without being conscious of its origins. In an earlier paper I argued for a re-interpretation of two popular analyses of convention in what I called 'neo-Humean' terms (Latsis, 2005: 710-718). Others have proposed similar binary distinctions between types of conventions without reference to Hume (Favereau, 1986; Batifoulier, 2001; Marmor, 2006). However the precise distinction is formulated, there appears to be an emerging consensus that there are different kinds of conventions and that these are best divided along similar lines to those suggested by Hume and described above.

II. The received view: conventions as arbitrary rules

Unlike Hume, most neo-Humean commentators see conventions as a specific type of social rule. These theorists take it for granted that conventional practices can be re-described as rules, and that this makes conventions and rules the same sort of thing. Quick examples inevitably support this intuition. In this way, the telephone example cited by Lewis can be reformulated as the rule: whenever the phone is cut off, the original caller must re-dial the number he initially called. Marmor, for example, is explicit in his definition of 'conventional rules':

> There are two main features intuitively associated with conventional rules. First, conventional rules are, in a specific sense arbitrary. If a rule is a convention we should be able to point to an alternative rule that we could have followed instead, achieving basically the same purpose, as it were. Second, conventional rules normally lose their point if they are not actually followed. (Marmor, 2006: 2)

The appeal to social rules is a traditional way to account for co-ordination in the social sciences. In its simplest form, the received view would claim that social order is explained by the existence of a set of rules or norms (explicit or implicit, tacit or conscious) that individuals know and follow. We find such rules in the minds of optimising neoclassical economic agents as well as the hyper-socialised actors of sociology. Philosophically informed social theories, notably those of Anthony Giddens (1979; 1984; 1993) and John Searle (1995)[3] have attempted to provide a more sophisticated analysis. They have attempted to explain how social rules structure individual action. According to these theorists, the ubiquity of social rules can only be maintained if they operate at a sub-conscious, unconscious, or tacit level - behind the backs of those who 'follow' them. Both on the naïve picture and the more sophisticated versions provided by Giddens and Searle, rules act like the rails on a train track, they are normative guidelines for individual agents to follow and they determine correct behaviour over an infinite range of future applications (Bernasconi, 2006).

It is not my intention to completely deconstruct this approach here, however it is worthwhile to note that the idea of rules as rails has been severely undermined from within the philosophical tradition of Ludwig Wittgenstein (Kripke, 1982; Kusch, 2006). According to these authors, the rule-following picture described above is the central target of Wittgenstein's later writings. Wittgenstein's comments on social life highlight the fact that almost any action can be described as being 'in accordance with' a social rule[4], but this does not imply that these actions are *rule-governed*. For the latter to be the case, rules would have to determine correct behaviour over an infinite range of possible applications – something they simply cannot do. In a minority of cases such as games, mathematics problems, or highly ritualised behaviour, it might be argued that agents actually follow explicit rules. In these cases, agents might be aware of the rules and consciously apply them to the situations they face[5]. In most cases however, rules are mobilised ex-post as justifications for actions and decisions taken in the past.

As with Giddens and Searle, social scientists are often aware of the potential of this critique. As a result, in many of the scenarios they describe the conscious application of rules is denied from the offset. Empirical studies rarely provide evidence of widespread conscious rule following. To take a simple example, though the theory of the firm treats it as a foundational assumption, few economists would claim that entrepreneurs actually follow an explicit profit-maximising rule when running their businesses. They know that such an assumption is empirically untenable. In a classic methodological piece Milton Friedman (1953) resisted this fatal conjecture by appeal to selection mechanisms in the market that allowed economists to treat entrepreneurs 'as if' they were profit maximisers. Is this evidence that social scientists have followed Wittgenstein and admitted that the social rules are nothing but ex post rationalisations of behaviour that categorise it as consistent with explicit rule-like formulae?

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[3] Searle's position is actually considerably more complex than Giddens'. Instead of directly claiming that rules as such are tacitly held, Searle relies on what he calls 'the background' to generate them. In grouping Giddens and Searle together I am implicitly denying that this strategy is successful in its attempt to avoid the pitfalls of tacit rules though I cannot argue it fully here.

[4] That is to say, can be described as conforming to a specific rule.

[5] There are even problems with these seemingly straightforward cases of rule following that need not concern us here but have engendered furious debate in the philosophy of mind and language (Kripke, 1982).

The dominant answer to this question has been *no* and the most commonly used escape strategy has been to locate rules in the tacit realm. According to this *tacit knowledge hypothesis*, the empirical invisibility of rules governing social behaviour is unsurprising because rules are tacit, located in the sub or unconscious. Order is still generated by rules even though agents are rarely aware of it:

> Most of the rules implicated in the production and reproduction of social practices are only tacitly grasped by actors: they know how to 'go on'. *The discursive formulation of a rule is already an interpretation of it*, and as I have noted, may in and of itself alter the form of its application. (Giddens, 1984: 22-23)

But this notion of a 'tacit rule following' by social actors, is highly problematic in itself. Rules normally understood are linguistic constructions of a particular type. One might summarise it as follows: 'in context *C* then if X do *Y*'. To follow a rule of this sort would require conscious knowledge of the above formula, the list of appropriate contexts and actions covered by the *C* and *Y* variables, and the ability to exercise this knowledge through appropriate action. This is exactly what is denied by the concept of tacit rule following. What is left looks indistinguishable from *acting in accordance with* a rule as described by Wittgenstein. The tacit rule follower has neither the knowledge nor the motives to justify his classification as a rule *follower*. This has led some observers to claim that rule-following accounts that stray from empirically observed instances of conscious and / or linguistic activity are at best in need of justification and at worst superfluous (Dreyfus, 1992: 256-271).

There is, however, a meta-theoretical reason why social scientists might be expected to fall back on tacit rules instead of abandoning the concept altogether. As mentioned before, rules play a central role in social theory because they provide a normative foundation for collective behaviour. Just like Hume's conventions they 'solve' the problem of social order *from the perspective of the individual.* Once the sources of co-ordination must be sought uniquely at the level of the actor, the notion of tacit rule-following is a natural fall back. Devoid of conscious knowledge to move agents, theorists must rely on unconscious but nevertheless mental states that do the same job. In this way the role of tacit rules is intimately tied to the individualistic premises implicitly accepted by many social theorists. I have previously argued that several leading theories of convention have implicitly or explicitly reflected this individualism (Latsis, 2005; 2006). It is therefore not surprising that the interpretation of conventions as arbitrary rules is widespread. Nevertheless, as I shall show below, the individualist perspective is not a prerequisite for thinking about convention. In the rest of this paper I present an alternative view of convention that draws its inspiration from the history and philosophy of science. This view abandons the individualistic focus that has been characteristic of theories of convention since Hume in favour of an emergent social ontology. As a result it presents a viable alternative way of describing conventional practices without recourse to rule-following.

III. Exemplars and Conventional Matrices

In order to break with the neo-Humean tradition let us suppose that our focus of study is the systemic and generalised features of social interactions, rather than the characteristics of individuals or the contents of individual minds. This is the strategy adopted by Thomas Kuhn in his analysis of scientific revolutions. Though he did not emphasise it often, Kuhn broke with the established practice of

focussing on the individual scientist in his laboratory. Consider one of his remarks on the nature of science as a social activity:

> The scientific enterprise as a whole does from time to time prove useful, open up new territory, display order, and test long-accepted belief. Nevertheless, *the individual* engaged on a normal research problem *is almost never doing any one of these things*. (Kuhn, 1970: 38)

He also explicitly rejected a rule-based account of scientific change,

> Normal science is a highly determined activity, but it need not be entirely determined by rules. That is why, at the start of this essay, I introduced shared paradigms rather than shared rules, assumptions and points of view as the source of coherence for normal research traditions. Rules, I suggest, derive from paradigms, but paradigms can guide research even in the absence of rules. (Ibid: 42)

Thus in studying scientific change, Kuhn was presented with a puzzle: the community as a whole displayed qualities that none or very few of its individual members displayed. Scientists did not appear to be following an explicitly formulated set of rules that guided their research and yet their shared identity is notorious – one cannot simply decide to become a nuclear physicist overnight.

In order to account for this order without rules, Kuhn introduced the idea of paradigms-as-exemplars. He described it as one of the revolutionary insights of his work, 'the most novel and least understood aspect of this book' (Kuhn, 1970: 187). In his analysis an exemplar is an exemplary puzzle solution:

> … a set of recurrent and quasi-standard illustrations of various theories in their conceptual, observational, and instrumental applications. These are the community's paradigms, revealed in its textbooks, lectures and laboratory exercises. (Ibid: 43)

An exemplar, understood in this way, facilitates a specific manner of approaching and tackling some circumscribed series of scientific problems. But to refer to an exemplary puzzle solution does not designate a specific object or range of objects (physical or abstract). What counts as an exemplar is a matter of existing scientific practices and their wider social context: it is a *status*. For Kuhn, an exemplar is the source of similarity judgments that allow a period of 'normal science' to proceed. The apprenticeship of new entrants into a scientific community familiarises them with the exemplar. It helps them to form habits and dispositions that are often automatic and allow them to make judgments of similarity when faced with new problems[6]. Familiarity with the exemplar also allows them to select which problems are relevant to, or important within, the paradigm.

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[6] It is interesting to note that Kuhn did not see the functioning of exemplars and their influence on similarity judgments as mysterious or un-analysable, rather he did not feel the reductionist need to define them in terms of their functioning. In fact, his discussion of exemplars led him into the study of psychology and ultimately neurophysiology. It seems that after the publication of *The Structure of Scientific Revolutions*, he became convinced that patterns of similarity judgments were the result of the appropriate conditioning of neurophysiological networks. For more see Kuhn (1977).

Kuhn restricted his own discussions to the history of physics and was cautious about over-extending them (Kuhn, 1970: 208-209). Yet the idea of the exemplar can easily be extended outside its original domain of application, as his explication of it shows:

> In a science on the other hand, a paradigm is rarely an object for replication. Instead, like an accepted judicial decision in the common law, it is an object for further articulation and specification under new or more stringent conditions (Kuhn, 1970: 23).

Indeed, the concept of 'exemplar' has already been taken up in other contexts. John Forrester (1996: 6-9) refers to Kuhn's exemplars in developing a model of a widespread 'style of reasoning' which he calls 'thinking in cases'. Like Kuhn, Forrester is interested in the way exemplars can pattern similarity judgments and result in an appearance of cohesion in scientific and professional communities. He draws on a number of examples from fields ranging from psychiatry, clinical medicine, law and the management sciences to show that this type of reasoning is widespread.

But the notion of an exemplar is not restricted to theoretical activities such as the ones described by Kuhn and Forrester. Social psychologists have suggested that our everyday attributions of social identity – those that allow us to define who we are in society in terms of in and out groups – are regularly made by reference to *prototypicality*. Prototypicality is a form of meta-contrast made by group members that licences judgments of similarity and difference within a perceived social group. It is based on an exemplar of the typical group member. In this way, we compare ourselves to exemplars in order to establish our social identities; judgments of similarity lead to a sense of group membership whilst judgments of difference lead to a sense of exclusion (Turner, 1987: 46-48). This example shows the potential of the idea of exemplars outside of the narrow field of history science. Most conventions do not involve *theoretical* reflection, nor are the practices they relate to as strictly circumscribed as scientific activities usually are. Nevertheless they display the normative qualities of Kuhn's paradigms. Even though it does not imply following a rule, participating in a convention has evident normative implications. The idea that exemplars pattern social practices rather than conscious or tacit rules is a key insight that can be taken from Kuhn's work and transposed to the study of convention.

Now I have already claimed that an exemplar is entirely contextually determined: it does not have an essence. Instead it has a specific functional relationship to other relevant social entities and bears a special social status. Thus it is plausible that an alternative view of convention needs more than just exemplars to supplant the received view of conventions as arbitrary rules. In an earlier article (Latsis, 2005:13-18), I suggested that the remaining elements could be summarised using two further concepts: the *moral and metaphysical neighbourhood* (*MMN*) and the *architecture of relations*.

In order to escape from the rigid determination of rules, the idea of conventional behaviour as rule-following should be abandoned. Nevertheless it is apparent that individual participants in a convention act appropriately, they display skill and co-ordinate successfully. These abilities are the product of socialisation and familiarity with the exemplar; skilled individuals are the product of training and apprenticeship. But if the exemplar does not provide a determinate formula for making judgments of right and wrong, how can this training take place? In order to resolve this problem I suggested the

idea of the *MMN*. At any given moment in time, a population sustaining a given convention has a finite knowledge set that includes both assumptions about the world and assumptions about what is right and wrong / correct and incorrect. As mentioned before, these assumptions are not universally shared. The population is heterogeneous: it does not share a unique set of representations. Nevertheless training or apprenticeship will be heavily constrained by the range of (heterogeneous) beliefs in the community. It is through these that the reactions of approval or disapproval of the community will be made. In turn, these normative reactions of the community are the foundation of the process of training. They set the limits of the acceptable for new members. The MMN thus allows us to understand both conventional inertia and change. Unlike in the case of rule-following, the content of the MMN is not fixed nor a matter of agreement, gradual changes in attitudes can be accommodated just as easily as staunch conservatism.

The MMN presupposes a final element of the analysis that I believe we cannot do without. Training and apprenticeship cannot occur without distinctions of power and authority. How a community might adopt an exemplar is matter of historical chance. Whether an exemplar generates the stable set of practices that we call a convention depends on some continuity in the social relations of the community. This is what I have previously called an 'architecture of relations'. The normativity of conventions – that is their ability to condition behaviour and shape practices – presupposes that some relations of authority exist. In other words it presupposes that there are people or groups for the new members to be trained by and learn from. This element (the architecture of relations) recognises something that is apparent to any observer of social interaction: individuals are routinely assigned to social roles and positions. These roles and positions are often internally related to each other and have a profound structuring effect on human interactions. The type of acculturation process that equips us with the skills to participate in conventional practices is dependent on pre-existing roles and positions of this sort. However whilst admitting that an architecture of relations seems crucial to the very idea of convention, it is important to recognise that the details of any given architecture of relations are not a matter of abstract theorising, rather their structure is an empirical matter to be investigated on a case by case basis. The exemplar based approach to convention could be represented by the following formula:

Exemplar + Architecture of Relations + MMN $\longrightarrow$ Convention

IV. An illustration inspired by Hume

My argument began with the central importance of Hume to the modern analysis of convention. It went further in clarifying the Humean distinction between convention$_1$ and convention$_2$, a distinction that has survived in modern debates. In the second section I problematised the conception of conventions as arbitrary rules that underpins most modern approaches and went on to suggest that Kuhn provided the hints to a richer more complex alternative. In this final section I provide an illustration of how the exemplar-based alternative might work in practice. My illustration is chosen

particularly with Hume's convention$_1$ in mind[7]. The existing literature on convention supports the intuition that (however common conventions of the second type might be) the complex cases of social co-ordination that have most interested social scientists are more likely to conform to the idea of convention$_1$. My illustration is drawn from the field of finance where complex valuation practices have arisen over the last 20 to 30 years that have a considerable impact on wider society and therefore merit deeper study.

Financial Valuation

Financial valuation refers to the process of estimating the market value of a financial asset or liability at a particular point in time. An established valuation practice is an essential part of any mercantile activity, it is the basis for distinctions of quality and hence plays a crucial role in the determination of prices. In finance, valuations are used for investment analysis, financial reporting, budgeting, as well as the determination of price and tax liability.

Modern valuation practices in finance provide a good current example of the intuition underlying Hume's convention$_1$. Several valuation methods co-exist, each corresponding to a different conception of what constitutes the real value of a firm. Nevertheless, in developed capital markets there is a tendency to adopt a specific set of practices that dominate precisely because they are widely used. At the moment, the principal tool of the financial industry is the *discounted cash flow* (DCF) valuation, though other methods of establishing the value of a company exist (multiples and comparables for instance). Once adopted, a valuation practice such as DCF can enjoy the status of an industry standard even in the face criticism and the existence of viable, and indeed sometimes popular, competitors. Thus, the adoption of one method of valuation over others is a matter both of historical contingency and is arbitrary in the sense that it admits of alternatives.

In what way does valuation relate to Hume's convention$_1$? Financial valuation is a highly professionalised activity. It relies on the evaluation of assets by indirect means. A process of consensus formation is therefore crucial to price determination. This is done by a community of specialists who engage exclusively in financial valuation, using increasingly complex analytical models to do so. The communal acceptance and use of these models is one of the cornerstones of the financial industry. Teams of analysts are employed by banks to produce reports that mobilise the accepted analytical tools in support of a particular price projection for a company's stock. This overtly linguistic and seemingly conscious manipulation of occasionally complex mathematical formulae is consistent with Hume's emphasis on co-ordination through shared principles. Without what appears to be a shared commitment to the principles (models) of financial valuation and its communication through the production of analyst's reports this convention would not persist.

How do modern financial valuation practices fit with the model of convention proposed above? Watson (2006) proposes a conventionalist interpretation of valuation practices that incorporates the categories outlined above. I develop his account below.

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[7] Hume's first conception of convention was introduced through the example of property rights. At a time when natural rights theories abounded, Hume inversed the accepted logic to argue that claims to private property were a matter of convention, an artifice of human invention. He characterised this type of convention (convention$_1$) as a reciprocal agreement based on the linguistically signalled adoption of a common principle of action.

The exemplar

The *capital asset pricing model* or CAPM is a mathematical model developed by a group of financial economists in the early 1960s as tool to determine the 'correct' prices of financial assets consistent with the rational expectations hypothesis (Sharpe, 1964). If applied to the analysis of a particular stock, it provides a method of discounting the future cash flows of the asset to their present value and thus establishing an 'accurate' valuation of the current price. The CAPM model has had enormous influence on the previously rather informal and intuitive process of financial valuation. Central to the exemplar is the idea that the future income of an asset is subject to risk. As a consequence, the promise of cash in the future should (according to CAPM) be discounted with respect to cash today to reflect this risk. Thus financial valuations involve the calculation of a discount rate, which the CAPM model duly provides:

Expected Security Return = Risk Free Return + Beta x Equity Risk Premium[8]

When the observed price of the stock is at the value determined by the CAPM discount rate, then it is at its 'correct' or intrinsic value. If the price exceeds the CAPM value it is overvalued, whilst it if it drops beneath the CAPM value it is undervalued. Calculations using this formula as a basic template enable portfolio managers and corporate financiers to make recommendations to purchase or sell the stock of companies and are also crucial in negotiations that lead up to corporate mergers and acquisitions.

CAPM has a number of other features that make it particularly appropriate for the status of exemplar for financial valuation:

- The model is extremely vague. It has not established a set of precise (exclusive) rules to be followed by practitioners. It co-exists with and is often combined with other less formal techniques of valuation such as multiples, comparisons with other similar firms in the same industry and qualitative analyses.

- Its principal role is in framing the calculation of the discount rate as described above. Further knowledge of the assumptions of the model, as well as mathematical developments of the equation and debates about the validity of the model do not usually arise in the process of valuation.

- The weaknesses of the assumptions on which CAPM depends are widely known. Many practitioners do not regard it as a realistic description of market functioning.

- However all financial analysts are trained in how to identify, understand and produce discounted cash flow valuations. It is part of their normal training and apprenticeship and is subject to rigorous testing.

- Subsequent use does not always or necessarily follow this rigid discipline once analysts have finished their training and attained the status of valuation 'experts'.

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[8] *Beta* is the sensitivity of the security's returns to the overall returns of the market. The *equity risk premium* reflects the assumption that the holder of a more 'risky' asset should be rewarded by a higher return. This discursive formulation is from Watson (2006: 2)

Moral and Metaphysical Neighbourhood

As will be clear from the description above, the MMN of a convention is not a static list of normative statements or prescriptions. Indeed, the lack of such a determinate list is precisely the reason why an MMN was invoked contra the idea of social rules. The community of financial practitioners who perpetuate the current valuation convention is heterogeneous and conflictual. Many individuals have never considered the normative limits of the convention, others might explicitly disagree on what those are. Thus the web of similarity judgments that forms such a central part in the process of apprenticeship is in a real sense indeterminate – it can only be seen when it is violated or challenged. This makes the case of delineating a MMN *purely theoretically* impossible. Empirical research can, however, reveal the limits of the acceptable at any moment in time and thus give an idea of the limits of the MMN.

In the case of financial valuation the MMN cannot simply be read off the CAPM model itself. Financial analysts do not, for instance, assume that there is a fixed quantity of assets, nor that the financial and productive sectors are completely separate, nor do they assume that there is no inflation nor changes in the rate of interest. All these are assumptions of the original theoretical model. Nevertheless, reference to the exemplar does impose a strong normative framework on the valuation industry. Analysts go through an intense process of apprenticeship in which they learn to use and eventually construct the tools of the trade. These tools presuppose a particular social ontology that includes the existence of capital markets, a judicial framework for resolving property disputes, and a pre-existing regulatory framework. Valuation of any financial asset is not conceivable without some such institutional arrangements. On a more abstract level, the process of financial valuation could not get of the ground without the existence of money and a legal system that guarantees property rights. Though they lack specificity, these conditions set limits to the metaphysics of financial valuation.

Valuation is similarly impossible without some set of normative presuppositions that Watson describes as the model's 'practical purpose' (2006: 17). He judges the latter to include (at the moment) the assumption that the role of valuation is to guide investors to make better (more profitable) decisions when buying and selling assets; to guide companies to make better (more profitable) decisions in the interests of their shareholders; and to gain influence in the market for valuations in order to encourage the backing of more complex investment decisions. But this short description is not intended to delineate the MMN precisely. It is merely intended to show that financial valuation, just like any other conventional practice cannot survive without some form of normative compulsion at its core. The limits of the MMN will be best discovered by an in-depth study of actual valuation practices: one which examines cases where individual reports, models and tools are rejected and investigates the justifications provided by those in positions of authority. This might be called a 'sociology of error' where the normative limits of a set of practices are investigated by observation. The idea here is not that once the convention 'hardens' it determines a correct path of action to be discovered through observation. Rather the intention is to show how the MMN forms and transforms itself, justified by collective and individual judgments of similarity that consistently refer to the exemplar.

Clearly such work has not yet been done and the proposed methodology has yet to be put into practice. What I am suggesting however, is that unlike the conception of social rules outlined above, the MMN can be studied in action. The result of empirical investigation would only provide a key to the MMN during a specific period; it would not yield determinate predictions. Further assumptions about the stability of the MMN would have to be postulated on independent grounds in order to make any forecasts about its future development.

The architecture of relations

The relatively recent appearance of CAPM means that the observation of the formation and transformation of the architecture of relations is possible. These can be tracked through a social history of financial valuation. Watson provides a succinct summary of the establishment of the architecture of relations in the following diagram.

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	Inspiration	Support	Practitioner Experiments	The Truth	Questioning
	1960 – 1964	1965 - 1975	1975 to 1985	1986 - 2002	2002 on
Knowledge Status	A simple equilibrium theory, not able to fit to the real world	Fitted to the real world Practitioners start to use simpler tools like PER	CAPM tested against real world data *"Too academic"*	As if a law of nature or mathematical truth *"Don't move without it"*	Some attempts to move to an Optimal status *"Use but with care"*
Architecture of Relations:					
Community – Passive	All investors, to the extent the theory is valid				
Community - Active	A few colleagues	The progressive academic establishment	Academics and some practitioners	Most investment and corporate practitioners	Most investment and corporate practitioners
Positions and relations	• Initial developers	• Co-developers • Teachers	• Co-developers • Teachers + • Practitioner testers	• Co-developers • Teachers • Practitioners • Trainers • Consultants • Senior company executives	• Co-developers • Teachers • Practitioners • Trainers • Consultants • Senior company executives
Procedures	• Academic papers, collegial reputation	• Papers • Research grants	• Textbooks • Company techniques • Reputation for innovation	• Textbooks • Tight company disciplines • Increased authority of users • Pressure on non-acceptors	• Textbooks • Academic critiques • Companies use, but less confidently • Vested interests maintain the status quo

(Watson, 2006: 16)

It should be clear from this example that the current valuation convention only came into existence around twenty years after the initial development of the economic model – probably some time between stages 3 and 4 on Watson's chart.   It is at this point that a community of practitioners who use the model for valuation finally formed. It is also in this period that the stability of social relations required for apprenticeship and training began to emerge. This nicely illustrates a further point about the interaction between the architecture of relations and the exemplar itself. Plenty of potential exemplars come into existence every day; very few of them serve as exemplars for a particular convention. For every model such as CAPM that reaches this status there are many other potential exemplars that do not. Furthermore, those exemplars that are adopted should not be seen automatically as the best or most successful tools for co-ordination. Their dominance is usually hard-won: it is the contingent result of intense lobbying and competition with other equally acceptable alternatives.

Conclusion

My exemplar-based picture of conventions represents a sustained attempt to redress an imbalance in social theory.   Modern social theory has tended, until recently, to view conventions as an unproblematic sub-category of social rules. By introducing the concepts of exemplar, MMN and architecture of relations I am moving away from this view. In effect I am proposing a different ontology of convention.   The case of financial valuation provides an illustration of how this alternative ontological framework might be put into practice. Further empirical and historical elaboration is needed in order to firm up the example and add depth to my analysis. Nevertheless, the discussion of financial valuation demonstrates that the exemplar-based picture has theoretical and empirical consequences. It also suggests methods and modes of reasoning that are appropriate to the new ontology of convention.

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