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Emotional Economic Man: Calculation and Anxiety in Fund Management

Abstract

Dominant theorisations of investment decision making remain firmly wedded to the notion of economic rationality either as a postulate of how financial actors actually behave or as a normative ideal to which financial actors should strive. However, such frameworks have been developed largely without engaging financial market participants themselves. Based on 51 in-depth interviews with fund managers in various global financial centres, this article highlights a number of features of investment decision making that mainstream finance and behavioural approaches both fail adequately to describe. Drawing on psychoanalytic theory, it is shown how the inherent uncertainty of the investment process engenders a state of endemic anxiety among fund managers. This anxiety is managed via a range of mental defences, both conscious and unconscious. The importance fund managers place on meeting and putting trust in company management to 'perform' for them can equally be viewed as a means of alleviating anxiety rather than having any direct economic purpose. This article, furthermore, brings to light the crucial role that calculative techniques play in dealing with anxiety. Rather than constituting a means of restoring rationality or correcting cognitive biases, calculation can actually re-enforce ego defences while simultaneously perpetuating the myth of *homo economicus*. Fund managers can be characterised as 'doing' but 'not doing' and 'knowing' but 'choosing not to know' and have to manage not only their clients' funds, but their own personal anxiety as well.

Keywords: *calculative techniques, psychoanalysis, fund managers, defence mechanisms, group psychodynamics, anxiety*

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"You know, this whole notion of efficient markets and economic man, I mean, I don't know what world they're looking at but it's not the same one that I live in." (interviewee 41)

Introduction

The belief that it is possible for fund managers to 'beat the market' is key to the existence and authority of the $37.2 trillion global asset management industry (ICI, 2016). This is despite considerable research showing that it is very difficult, if not impossible, for individual fund managers to outperform other fund managers or their benchmarks on any consistent basis after costs (e.g., Carhart, 1997; Fama and French, 2010; Barras, Sciallet and Wermers, 2010; Gennaioli, Shleifer and Vishny, 2015). And, similarly, more generally, to distinguish skill from luck (Jones and Wermers, 2011). Nonetheless, money managers are placed under enormous pressure to perform in an environment over which ultimately they have little control. In essence, they promote their funds to investors on the basis that they are able to do what cannot be done (Goyal and Wahal, 2008; Porter and Trifts, 2014). In a broader context, the whole asset management industry, its fund managers and their clients can be viewed from one perspective as subscribing collectively to the idea that the uncertain future can be controlled and managed.

Our paper explores how fund managers continue to do their jobs when they are expected to do what is not possible, and the conscious and unconscious mechanisms they employ to deal with the anxiety that the outcomes of their investment decisions are essentially unpredictable. We hypothesise that *calculative rationality* – the deployment of formal calculative techniques and decision making processes – is an important means by which both fund manager, and asset management industry more broadly, are able to cope with uncertainty and help erect mental barriers against the reality that future returns are inherently precarious. Uncertainty, which cannot be quantified, is transformed into risk which is measureable (Knight, 1921) and the 'not-knowable' is thus seemingly avoided.[1]

[1] Weick (1988), in fact, cherishes uncertainty and acknowledges the value of "an ongoing encounter with ambiguity, ambivalence, and equivocality; being part of a larger attempt to make sense of life and the world" (see also Czarniawska, 2005).

We explore how fund managers make sense of what they do on a day-to-day basis. We do so in order to understand more broadly the nature of the - both conscious and unconscious -mental processes that underpin much of what takes place in financial markets. We draw on psychoanalytic theory to help explain our empirical findings. Whereas psychoanalysis originated in the clinical setting, psychoanalytic theory is now widely employed in the humanities, social science and management literatures. However, the application of psychoanalysis in the accounting and finance domains has been very limited to date. This is surprising as psychoanalysis "represents arguably the most advanced and compelling conception of human subjectivity that any theoretical approach has to offer" (Fotaki, Long and Schwartz, 2012, p.1105).

Consideration of what fund managers *actually do* in practice and *how* they make their buy, sell and hold investment decisions, as opposed to the outcomes of these, rarely enter into the research designs of either traditional finance or behavioural finance. Mainstream finance takes *homo economicus* largely as axiomatic, whereas behavioural finance presents it as a normative ideal. Crucially, here, 'calculation' is presented as a means by which investment professionals can reduce cognitive bias and ensure 'rationality' in their investment processes. However, in this paper we argue that the "calculative ideas" and "calculative devices" (Tan, 2014) employed by fund managers are equally used as a defence against the feelings of acute anxiety that uncertainty generates. An understanding of the nature of these processes is key to explaining the underlying paradox that the fund management industry represents. This paradox is, to a great extent, built on the idea that what is not possible can nonetheless be achieved. Were it to be formally acknowledged that investment professionals are not all-knowing, information processing machines who always succeed in making rational investment decisions, then the legitimacy of both their role and, more generally, that of the investment industry in its present form, might be called into question (e.g., Suchman, 1995), as might any wider faith in 'the market' as a means of efficiently allocating capital.

In this paper we seek to identify the emotional aspects of the work of fund managers that are largely neglected by dominant theorisations. These are key to any understanding of how investment professionals mediate uncertainty and its associated affects. We argue here that fund managers 'know' but 'not know' (Steiner, 1985) and 'do' but 'not do'. In other words, they know on one level that they cannot beat the market, but on another level have to deny or repress this to allow them to continue to do their job, "turning a blind eye to [such] uncomfortable facts" (Steiner, 1985, p.170). Drawing on 51 in-depth interviews with elite fund managers in various global financial centres, we illustrate how these individuals experience and manage continuous anxiety as they go about their professional activities. Further, we offer insight into the ways in which this emotional turbulence is dealt with at both an individual, as well as industry level. We find that this is often by resorting to calculative techniques which are frequently overridden, conflating risk and uncertainty and seeking relationships of trust directly with company management, *inter alia*, to delegate responsibility for their investment performance and thereby 'offload' their anxiety and feel better. Importantly, our findings suggest that investment professionals routinely employ a range of psychological defences to negotiate uncertainty and the mental 'pain' the associated anxiety leads to.[2] Importantly, this takes place within the broader context of an industry behaving as a *basic assumption group* (Bion, 1952) in collectively avoiding acknowledging the impossibility of doing what is conventionally expected of it. Calculation plays an important role in re-enforcing rather than dissipating these defence mechanisms at all levels.

We contribute to the literature in a number of ways. First, we explore the emotional nature of the fund management task and how fund managers, and the investment industry more generally, deal with anxiety and the inability to distinguish skill from luck. Second, we describe the key role calculative techniques play in the fund manager's task, showing that these are not merely an attempt to help him/her perform better. Calculative techniques also provide a way of signalling expertise and authority, both to clients and to the fund manager him/herself. Being able to subscribe to a formal calculative schema, however flexible in practice, allows the fund manager to have faith that the future can be controlled so that he/she can continue to invest irrespective of actual investment outcomes.[3] Finally, we show how fund managers look to company management to alleviate their own anxiety through the establishment of trust. This need to trust helps explain the key role meetings with company management play in investment decisions, even though no price-sensitive information might be conveyed during these encounters (Barker, Hendry, Roberts and Sanderson, 2012).

[2] There is a clear distinction drawn in psychoanalysis, as in the more general psychological literature, between anxiety, experienced in relation to unpleasurable and threatening internal, unconscious dangers, and fear which relates to consciously recognised realistic external threats (Auchincloss and Samberg, 2012, p. 18).

[3] In parallel,Tan (2014) shows how sell-side analysts use related devices in integrating corporate governance into their investment processes and views this predominantly in terms of analysts seeking discursively to establish their expertise. However, based on our research we would speculate whether this calculative process also serves to help the analyst alleviate his/her parallel anxiety associated with the very limited evidence that their investment recommendations are reliably related to future stock returns (e.g., Altinkilic, Balashov and Hansen, 2013; Busse, Green and Jegadeesh, 2012).

Theorising investment decision making

Dominant explanations of investment decision making are primarily drawn from mainstream finance theory. Mainstream finance is derived from neo-classical economics and assumes a world populated by *homo economicus*, or rational economic man: an individual who seeks to maximise his utility, which is typically reduced to simply wealth maximisation. Moreover, this individual is assumed to make perfectly rational decisions, possesses unlimited information processing power and holds preferences that are both predictable and stable (von Neumann and Morgenstern, 1953). By extension, markets are assumed to be efficient through the actions of these self-interested individuals, transacting together such that there are no opportunities to earn superior returns on a consistent basis.

In contrast to traditional finance, behavioural finance theorists and behavioural economists rely on the insights of cognitive psychologists in order to understand investor behaviour (Kahneman et al, 1982; Shefrin, 2002; Hirshleifer, 2015). Broadly speaking, behavioural finance seeks to identify the cognitive errors, or heuristics and biases, that individuals are prone to which are viewed as being myriad. Hirshleifer (2015), a leading behavioural finance academic, for example, lists no fewer than 30 of these including overconfidence, overoptimism, regret, limited attention, representativeness, various disposition effects and feelings such as affect and sentiment etc. This approach has been held up as superior to more conventional approaches that fail to embrace bias and error as a key feature of individual behaviour. Behavioural finance therefore presents itself as a new paradigm for understanding the behaviour of financial actors. However, it remains wedded to standard notions of rationality by holding up the latter as a strong normative ideal (e.g., Shefrin, 2002, p.3). Investors should seek to maximise expected utility, even if they are not doing so just now. Moreover, the original heuristics and biases literature developed using either high school or undergraduate student subjects rather than skilled and experienced decision makers and dealt with laboratory tasks of a hypothetical and context-free nature (see, for example, Kahneman et al, 1982 and Gilovich et al, 2002). Furthermore, there are very few studies that set out explicitly to test these cognitive processes in real-world market environments, preferring instead the stylized environment of the research experiment (see, for example, Lipe, 1998). Moreover, in the few cases where real life market participants have been engaged in real life settings, results are often inconsistent with behavioural theory (Chan et al, 2004).

Awareness of the conceptual and methodological limitations of behavioural finance (see Buturovic and Tasic, 2015 for a summary) prompts Hirshleifer (2015) to argue the need to go beyond cognitive biases to include the study of social norms, ideologies and attitudes and, importantly for the purposes of the present paper, the role of feelings in investment decision making. In line with this thinking, the present paper embraces a more qualitative and socio-psychological approach to understanding investment decision making. Such an approach would ideally explore what investment decision makers actually do in real life settings as means of contributing to a more sophisticated understanding of investment activity. However, studies that engage investment decision makers, such as fund managers or other financial intermediaries, are relatively sparse, and also present limitations for our purposes. For example, broader sociological perspectives on financial markets have been offered by Smith (1999), MacKenzie (2006), Hardie and Mackenzie (2007), Callon (2008), Cetina and Preda (2012), Pixley (2012) and Preda (2017). However, these studies mainly seek to shed light on the performative and complex nature of financial markets, products or models rather than the myriad ways financial actors actually make their investment decisions. Callon (2008), for example, usefully coins the pithy moniker *homo economicus 2.0* in order to refer to the way in which market participants are integrated into a wider, complex network of information and other actors. However, Callon's (2008) focus is on the financial market *tout court*, rather than the actual behaviours and investment processes of professional investors therein.

Roberts et al. (2006), in one of the few organisational studies that engage fund managers directly, look at the way in which these individuals interact with company management. Adopting a Foucauldian perspective, Roberts et al. (2006) document that company/fund manager meetings are powerful means of disciplining corporate executives to behave in accordance with shareholder value imperatives. Although their focus is primarily on how these meetings shape the subjectivity of company executives, Roberts et al. (2006) recognise that further research exploring fund manager/company interactions could usefully shed more light on the work and work context of the fund manager (p.292). This is something that the present study seeks to do.

In a related study, Barker et al. (2012) explore the paradox of why fund managers view their meetings with company management as their most important source of information even though no price-sensitive information is disclosed. They also speculate on whether fund managers can be viewed as heroic, romantic or deluded showing the various ways in which they "fail to act with the rationality that conventional economic theory assumes" (p.207). Barker et al. (2012) speculate as to whether such behaviour is consistent with cognitive bias, *post hoc* rationalisation or sense-making, concluding that further qualitative empirical studies need to be undertaken in order to understand the ways in which these key market participants come to various conclusions about the value of their investments:

> "The need for future research in this area is clear: if the activities of the fund management sector…are indeed invested heavily in a deluded process, leading to irrational investment decision-making, it is economically important to understand why this is the case." (p.220)

Detailed interrogation of our interview material highlighted the key role unconscious processes, as well as those of which our fund managers were more consciously aware, played in shaping their beliefs and investment activities. This study draws upon elements of psychoanalytic theory, in particular the works of Klein (1935, 1946) and Bion (1952, 1961), to help understand the way in which fund managers negotiate the anxiety that their work necessarily generates.[4] To our knowledge, the vital part anxiety and anxiety management (Auchincloss and Samberg, 2012, pp. 19-20) play in all financial activity has yet to be formally recognised in the accounting and finance literatures.

Psychoanalysis has been more readily drawn on in organization and management studies. For example, Clancy, Vince and Gabriel (2012) examine the role disappointment and failure play in organisations and, adopting a psychoanalytic perspective, outline the associated defensive mechanisms adopted. They show how: (1) Organisations are intensely emotional environments in which emotions often stand in opposition to rational considerations; (2) Emotions are intertwined with power relations within organisations; (3) Unconscious as well as conscious processes are central to an understanding of human systems and how they function; (4) Anxiety and other intolerable feelings may be hidden from view through defences, some of which are individual and others social; and, (5) Action is as much the product of fantasy as it is of rational calculation. Our empirical material suggests each of these features apply equally in the asset management industry, both within individual fund management houses and also at the individual fund manager level. The industry claims to operate at a 'rational' level. However, as we will suggest below, feelings and emotions, both conscious and unconscious, play a strong role in shaping investment behaviour. We argue that this needs to be properly understood if we are to make sense of the paradox that the asset management industry represents; where the nature of the fund manager task is one of inevitable disillusionment and 'failure'. Phantasy [unconscious fantasy], or a "wish fulfilling idea

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[4] Psychoanalysis, as Eric Kandel (1999, p. 505) – the 2000 Nobel Laureate psychiatrist and neuroscientist – points out, "still represents the most coherent and intellectually satisfying view of the mind". In a similar vein, Bargh and Morsella (2008, p. 73) argue that "Freud's model of the unconscious as the primary guiding influence over daily life, even today, is more specific and detailed than any to be found in contemporary cognitive or social psychology."

which comes into play when external reality is frustrating" (Segal, 1991, p. 12), dominates given the impossibility of the fund management industry doing what is required of it.[5]

Clancey et al (2012) is a useful starting point for understanding the key role that mental processes play in investment decisions. In this respect, investments can be thought of as constituting a relationship between investment decision makers and specific objects. Objects, following Klein (1935), are "symbolic entities…invested with meanings and qualities and are capable of being integrated with or separated from the self" (Clancy et al., 2012, p.52). Object-relations exist from birth and create emotions of both excitement (in our context the pleasure of actual or imagined future gains) and anxiety (over the pain of actual or potential loss), often of an unconscious nature. These emotions, particularly the negative emotional state of anxiety, are dealt with by individuals in different ways.

Dealing with anxiety

According to Klein (1952), people make decisions in one of the two basic oscillating states of mind, the depressive (D) state of mind, and the paranoid-schizoid (PS) state of mind. In the D state, we see ourselves and the others more or less as we are, both good and bad. In the PS state of mind, the psychic pain of dealing with undesirable reality is avoided by mentally splitting off the good from the bad, thereby avoiding anxieties that would accompany their synthesis (Auchinloss and Samberg, 2012, pp. 297-299).[6] According to Klein (1935; 1946), a number of unconscious avoidance strategies or defence mechanisms are employed from the very beginnings of ego development by individuals to protect against anxiety in a PS state of mind such as splitting, projection and denial of external reality.[7] Splitting is "an action undertaken in phantasy which can be used to separate things which belong together" (Segal, 2004, p.34). Splitting involves the over-

[5] Klein (1936) views the whole of an individual's psychic life as dominated by phantasies originating in the earliest stages of emotional development: "…infantile feelings and phantasies leave, as it were, their imprints on the mind, imprints that do not fade away but get stored up, remain active, and exert a continuous and powerful influence on the emotional and intellectual life of the individual." (p. 290). Financial markets provide an environment in which such infantile phantasies can be easily acted out.

[6] It should be pointed out that other more productive ways of dealing with anxiety are found in individuals operating in a D state of mind with objects now viewed in a more whole way as possessing both good and bad characteristics simultaneously. In a depressive state of mind "Depressive anxiety can be held within the self and is a stimulus to attempt to make things better … anxiety of a bearable kind becomes a stimulus to creative work." (Segal, 2004, p. 55).

[7] Illusion or wishful-thinking can also be viewed as a defensive mechanism in this context particularly in the case of fund managers who have to subscribe to the illusion that earning superior returns on a consistent basis is possible. However, whereas illusion is capable of correction, delusion is not (Auchinloss and Samberg, 2012, p. 110).

emphasis of one set of perceptions and the simultaneous repression of opposing perceptions as one means of resolving the difficulty of dealing with conflicting feelings.

Projection (or projective identification) is a psychic mechanism by which certain unbearable aspects of the self (the split off 'bad' objects) are 'got rid of' into someone or something else. "The person then no longer feels that this aspect of themselves (including the feelings attached to it) belongs to them" (Segal, 2004, p. 37), although now replaced by feelings of guilt and persecution by the projected-onto object. For example, the 'rational' and the 'emotional' can be split (Fotaki and Hyde, 2015) and then seen as 'good' and 'bad' objects in Kleinian terms. This might manifest itself, for example, in the categorization of others as emotional, with the category of the rational preserved for oneself. Projection often involves negative feelings or perceptions, but can equally involve positive feelings such as in the case of a celebrated fund manager who unconsciously becomes an idealised version of the investor, in whose mind the fund manager serves to embody all the hopes and desires of who he or she would like to be.

Denial is a defence mechanism "by which an individual repudiates some or all aspects of a given reality, thereby diminishing or avoiding the painful affects associated with that reality." (Auchincloss and Samberg, 2012, p. 54). The individual disavows the external reality he/she does not want to acknowledge or know about, thereby avoiding having to address the emotional conflict it creates. Indeed, Klein points out that "the denial of psychic reality [and associated external reality (Klein (1935, p.145)] becomes possible only through the feeling of omnipotence" (1946, p.102). Splitting, projection and denial essentially constitute different forms of defence against painful states of mind. We would expect fund managers to employ such psychic processes in an attempt to protect themselves against the underlying reality that the future is not predictable and, by extension, to deal with any associated anxiety that this might provoke. If and when such defences break down, and the intensity of the anxiety experience cannot be held at bay, then *panic* results, leading to feelings of mental disintegration, fragmentation and an extreme sense of helplessness (Moore and Fine, 1990, p. 25). In psychoanalytic terms, panic manifests itself in a paralysis of thought (De Masi, 2004); the capacity for mental containment of anxiety that normally holds us together collapses and we become overwhelmed by internal terror.

Group psychodynamic processes

As financial intermediaries, fund managers are involved in complex networks that involve myriad interactions with other financial intermediaries as well as their investment clients. Something that experimental studies fail to replicate, or often to even take cognisance of, is that investing is "a social activity, not an individual one" (Preda, 2017, p.88). Building on the work of Klein, Bion (1952, 1961) explores the role of group processes and how groups behave when their members are placed under conditions of stress. In particular, Bion distinguishes between two different types of mental activity in groups which coexist and which closely map onto Klein's distinction between D and P-S. In *work groups*, which represent a collective D position, cooperation of its members towards achieving a common end is promoted, a "rational and scientific" approach (Bion, 1961, p. 98) to problems is taken and the orientation is outwards towards external reality, On the other hand, *basic assumption groups*, which resemble a common P-S state of mind, are driven by powerful unconscious impulses and drives. The purpose of the basic assumption group is to provide good (i.e., pleasurable) feelings to its members through the unconscious defences the group as a whole adopts against anxiety, rather than any reality-based thought and testing. Potential adverse consequences are lost sight of and *unconscious wishful thinking* dominates. Splitting, projection and denial are evident in basic assumption groups which, according to Bion take the form of one of three 'basic assumptions': dependence, fight/flight and pairing.[8] "All basic assumption groups include the existence of a leader, although in the pairing group … the leader is 'non-existent', i.e., unborn. … [The leader] need not be a person at all but may be identified with an idea or an inanimate object (Bion, 1961, p. 155)".

A group that is driven by the basic assumption of dependence "is indissolubly linked with feelings of inadequacy and frustration, and is dependent on the attribution of omnipotence and omniscience to one member of the group" (Bion, 1961, p.93). The way fund manager 'stars' are reported on in the media as omnipotent deities and viewed as role models by other managers might, for example, be reflective of how these individuals are implicitly being used to demonstrate that it *is* possible to control the future and thereby defend against intense anxiety.[9]

One of the more common basic assumption group processes is what Bion (1952; 1961) terms fight or flight. Fight/flight refers to the tendency of groups to either attack an object directly or to run away from it in a state of panic. Consistent with this a number of our respondents

[8] Bion (1961, p. 162) in fact points out "I know of no experience that demonstrates more clearly […the existence of basic assumption group behaviour than] the dread with which a questioning attitude is regarded." The manner in which the asset management industry and its foot soldiers, fund managers, defend themselves against questions about their purpose and value is illustrative of this point.

[9] Eshraghi and Taffler (2012) demonstrate this directly in the case of hedge fund managers.

explicitly saw themselves as battling against malevolent market forces and under the continuous threat of "capitulating", i.e., surrendering or running away. Flight offers instant satisfaction of impulses. Such types of behaviour are evident in financial markets in the contagious excitement of asset price bubbles, such as dot.com mania, where investors simply 'must have' particular types of investment. However, when the bubble bursts, they immediately all flee seeking to dump their now tarnished assets as fast as possible (Tuckett and Taffler, 2008).[10] One also thinks of the collective flight from exposure to complex derivatives once reality intrudes and the euphoria associated with risk-free investment fantasies is recognised for what it is, as was the case during the Global Financial Crisis (e.g., Roberts and Jones, 2009). We speculate that collective flight into the numerical sphere of calculation might constitute one means of defence against the anxiety of uncertainty by providing the illusion of control over the unforeseeable future.[11]

Pairing is the basic assumption least talked about by Bion but relates primarily to the libidinal, reproductive instincts of groups. In the pairing basic assumption group, the feeling of hope is key based on the collective phantasy of a notional pairing producing a 'messiah', although he can never be born. Bion (1961, p. 151) comments: "… the feeling of hope itself … is characteristic of the pairing group and must be taken by itself as evidence the pairing group is in existence, even when other evidence appears to be lacking." In this context, the key role unconscious wishful thinking or hope of future returns plays in all investment activity is a clear manifestation of pairing basic assumption group behaviour. Interestingly, this is even conventionally recognised by the industry itself which views financial markets as driven by greed, fear and *hope* (e.g., Shefrin, 2002). In fact, all our interviews without exception were permeated with feelings of hope, and this is, of course, the basis on which investment products are usually sold.

In this paper we explore how fund managers deal with the unpleasurable state of anxiety which is an indelible part of all investment activity. Further, conscious of Knight's (1921) distinction between risk and uncertainty, we also draw attention to whether fund managers see their own performance as something that is controllable and manageable, like risk, or largely out of their hands, like uncertainty. Specifically, we explore the prevalence of various defence mechanisms such as splitting, projection and denial (Klein, 1935; 1946) in investment decision

[10] In this context, Aliber and Kindleberger (2015, p. 46) refer in their overview of Hyman Minsky's model of financial crises to *Torschlusspanik* – 'door-shut-panic' in German as investors crowd to get through the door before it slams shut.
[11] Roberts and Jones (2009), in their study of the credit crisis, suggest that intensification of calculation can serve as a defence against the disintegration associated with the panic state.

making processes. Furthermore, we consider the way in which investment judgements are influenced by group psychodynamic processes such as those that characterise both work and basic assumption groups (Bion, 1952, 1961). In turn, this permits a more nuanced understanding to emerge of how asset managers continue to function professionally while facing the seemingly impossible imperatives to 'beat the market'.

Data and methods

We base our empirical results on in-depth interviews with 51 asset managers located in New York, London, Boston, Edinburgh, Paris and Singapore arranged through personal contacts and using a conventional snowball approach. All bar four of our 51 fund managers ran equity funds with a wide range of investment methods employed ranging from those of a predominantly qualitative nature to highly sophisticated quantitative models. Of the four non-equity managers one ran a bond fund, a second was responsible for in-house client fund allocation decisions, the third ran a quantitative global tactical asset allocation model to identify countries and sectors to invest in, and the fourth ran a quantitative global index fund. Broadly speaking, three quarters (35) of our equity managers could be classified as traditional (conventional) bottom-up stock pickers who used more or less qualitative or judgemental-based approaches to stock selection. Around 10% (five) of our interviewees employed exclusively quantitative investment processes. The remaining 15% (7) adopted a mixed "quant. and "qual." approach with quantitative models used to generate investment recommendations; these models were then overlaid with more traditional due diligence analysis to confirm the models' signals and override these when they were perceived to be wrong.

Interviews took place in the first 8 months of 2007.[12] Mean fund size was almost $10bn with most respondents managing more than $1bn of assets. Average portfolio management experience was 15 years. Our interviewees managed a wide range of funds and invested across most developed and developing markets. Not surprisingly, given the way in which respondents were selected and their tenure in their jobs, two-thirds had outperformed their benchmarks over the previous three years. As such, we note our interviews may have been biased towards more

[12] A refresher sample of 6 further interviews were undertaken in late 2014/early 2016 to see if recent events had led to changed perceptions and behaviours with the new respondents having similar characteristics to our earlier ones. There was no evidence of any difference in responses compared with our main sample.

successful managers.

Interviews were 70 minutes long on average (ranging from 40 minutes to 150 minutes). Each interview was audio-recorded and carefully transcribed. The format used in the interviews was the standardised non-schedule interview (SNSI) developed by social epidemiologists specifically to deal with the social meaning problem (e.g., Richardson, Dohrenwend and Klein, 1965), a variant of the conventional semi-structured depth interview (Gaskell, 2000). In an SNSI, respondents talk freely and explore how they understand the questions with the interviewer, who essentially plays the role of a 'sounding board', responding and probing to get underneath the assumptions respondents make about what the interviewer means or wants to know.

Applications of psychoanalysis to various professional environments were important in sensitizing the authors to potential themes of interest (e.g., Clancy et al, 2012 and Fotaki & Hyde, 2015). The interview protocol was developed from the outset in order to both understand in detail the fund manager's approach to investment decision making, and to elicit any emotional processes or psychological complexity that day-to-day fund management work might engender. To this end, interviews covered a wide range of issues. In each interview, background information about the fund manager, the funds he (almost invariably 'he') managed, his performance benchmarks and main clients were first requested, together with his decision making responsibility and investment house and team structure. Interviews then moved on to explore in some detail such things as the fund manager's investment strategy and how his investment decisions are made, how the respondent felt about his job, how he is evaluated and rewarded and what he believes his competitive advantage to be. Other areas covered included beliefs about the market, what risk means, fear of being blamed if things go wrong, trust of company management and reliance on company visits and, especially with the non-pure quant. fund managers, individual investment decisions made in the previous 12 months. Importantly, for our purposes here, respondents were specifically asked to describe the various elements of their investment decision process in detail. Particular attention was paid, both during the interviews and during subsequent analysis of them, to the relative importance of calculative techniques in arriving at an investment decision.

Over 1,900 pages of transcript were analysed by all members of the research team in an iterative fashion. As the theoretical themes were progressively and collectively identified, debated, narrowed down and elaborated, the researchers would return to the transcripts in order to interrogate them anew. At times this involved returning to the audio tapes in order to ascertain the tone used for specific utterances, or in identifying pauses and the natural syntax of the interlocutors. This level of detail in the data analysis was important in developing a feel for both the discourse of the individual interviewees and for the specific themes under study. In the narrative below, each interviewee has been given a unique numerical identifier to preserve anonymity.

Our theoretical themes elaborated upon below were identified in the course of the data analysis. A psychoanalytic reading broadly informed our study in that there was a concern to uncover the emotional elements of the fund manager's task. However, the work of Bion, Klein and others was incorporated much more concertedly as the process of data analysis developed. Themes of splitting, projection, denial and group psychodynamics thus emerged throughout the course of the various transcript readings and came to be the master concepts around which the empirical narrative below is woven. The way in which researchers identify different themes as more important than others is one of the most un-theorised parts of qualitative research (Ahrens and Dent, 1998). The themes discussed below were identified via a combination of those that seemed most pertinent to the overall objectives of the study; those that were representative of interviewee discourse; and, those that were the more salient vis-à-vis the emerging theoretical framework. Other researchers may well have seen other themes in the data.

How fund managers make investment decisions

All our interviewees described in detail how they had a specific process or routine they follow in their principal task of making investment decisions. Each respondent believed strongly in the distinctiveness of their particular investment model,[13] even though these were often very similar and, not surprisingly, their associated ability to outperform the market and their peers. Also, it was very clear how faith in the power of their formal investment process to generate returns is crucial in helping fund managers deal with uncertainty and manage their anxiety. Having an investment 'system' to follow, even if, as we will see, this turns out to be very flexible or *ad hoc* in practice, nonetheless provides the fund manager with a feeling of confidence and control even though the market itself cannot be 'managed'. These attempts to engender self-confidence are evident across all investment approaches. Indeed, even though the sophistication of calculative techniques employed vary significantly from one type of fund manager to another, the same general attempt to exert control and master the vagaries of the market is observed throughout our interview material.

[13] 'Model' is used in this paper as synonymous with 'process' and 'system' in line with the loose terminology employed by our interviewees.

Traditional stock pickers

Most of our fund managers used a bottom-up investment process to identify mispriced stocks and make their buy, hold and sell decisions within a portfolio context. Integral to this is the need to meet company management to help assess firm 'quality', its strategy and future prospects and, most importantly, whether they like and trust its management or not. Conventional forward looking DCF or P/E ratio-type analysis is typically conducted to measure 'intrinsic value' to see if this is out of line with the current market price.

> [O]ur approach is first and foremost to identify a company's quality, which I understand a lot of people would view as a subjective thing, *but we think it's objective* [italics added] .… And then…we look to pay the cheapest price possible….Now, to do the quality screening requires a lot of labour intensive work, because you have to get out to meet the management… can you trust the guys? (7)

Integral to the stock picking process is the identification of potential investment opportunities for detailed evaluation. In many cases computerised screening is employed as a filter to generate short lists of stocks with desired characteristics for further in-depth analysis, although sometimes the fund manager was suspicious about their value. In others, fund managers drew on brokerage house and in-house industry analysts for their investment ideas. Some fund managers even seem almost to rely on serendipity as a French fund manager demonstrates:

> …[S]creening is for bad managers, managers who have no ideas. And we find, we find new ideas everywhere, reading a newspaper, participating to a seminar, receiving managers in [the investment house's offices in Paris], speaking with [other] fund managers, by experience because we are fund manager for more than 20 years. (29)

This focus on serendipity as superior to the more sober outputs of a computerised screening process are indicative of traditional stock pickers' needs to feel that there is something truly distinctive about what they do.

Pure quant. managers

In contrast to the more intuitive approach to identifying potential investments used by traditional stock pickers, quants managers have a more intimate relationship with mathematical models. Five of our respondents' investment processes made heavy recourse to highly sophisticated computer programs designed to run very large portfolios without the need for significant fund manager intervention. Such quantitative models appear to alleviate some of the anxiety more traditional fund managers have to face although replacing these with other anxieties about whether their models will continue to work. One fund manager whose quantitative global fund holds 350-400 different stocks (the typical traditionally managed fund would only have a portfolio size of 60-100), and who doesn't visit management or use qualitative data in any way, saw the advantages of his approach as:

> So, rather than agonise and pore over the data of lots of different companies… we use computers to help us pick stocks. Essentially the process is every month we run a bunch of programs and they more or less manage the portfolio for us. (25)

Going further, this fund manager described how his computer programs, i.e., his 'model', is effectively de-emotionalized. The implication here is that human emotion is something that interferes with rational decision making and, therefore, minimizing human interference is economically valuable. Interestingly, this negation of the human role in making investment decisions leads to the *de facto* humanization, or anthropomorphisation, of a putatively dehumanized model:

> It doesn't suffer. It doesn't get discouraged, put it that way. It doesn't suffer from any trauma…. [the consequence is] We are not as passionately involved I suppose as the regular managers. I don't think it has given me a great sense of joy, particularly. There's a bit of a case of *que sera sera.*

Another of our interviewees used a quantitative model to run an international fund of 800 stocks spread across 40 countries which worked with a linear optimiser (a type of portfolio optimisation algorithm) to generate a list of buys and sells based on their probability of outperformance and other desired characteristics. Appealing to a higher authority for his investment process, and perhaps to enhance his credibility by showing his knowledge of core finance concepts, the fund manager drew on mainstream academic finance theory in describing his model: "Yeah. In very simple terms it's Fama-French in the real world."[14] When asked to describe the role of the quantitative fund manager this same interviewee uses the metaphor of a pilot who despite the autopilot is still ultimately in control of the aircraft:

> If you know there's still a pilot, that's the analogy. You know, the plane's flying itself but there's still a pilot and he's supposed to know what's going on and whatever else. The idea is you've got a fund manager who basically knows how the model is constructed, knows what he is trying to do, and is basically authorising the trades as they go through. (26)

Nonetheless, however much an integral part of the quantitative fund manager's philosophy is to delegate investment decision making to his computerised system, this, of course, also has the implicit effect of shifting the responsibility to perform (and the associated anxiety) away from himself on to his quantitative model.

Quant. and qual. managers (hybrid approaches)

In addition to traditional stock pickers who rely, to a significant extent, on their own intuitive judgements, and quant managers, who mainly rely on mathematical models, there are fund managers who combine both of these approaches. Seven of our fund managers used quantitative models but then revised the trading recommendations these generated using more traditional approaches. A good illustration of this wanting to have the best of both worlds is one interviewee who describes how:

> We spend a fair amount of time teaching the computer to scan thousands of companies to look for these areas [very profitable, somewhat on the boring side, overlooked], then we spend a fair amount of time individually analysing them to make sure that the computer got it right. (40)

In another case, conveying a need to feel omniscient, a large behavioural fund uses a "proprietary factor model [to] …exploit anomalies that we witness in financial markets…."

> [W]e rank all the stocks in the universe. For us it's either 2,000 or 2,500 stocks,

[14] This refers to the main empirical paradigm used in quantitative investment and asset pricing theory (e.g., Fama and French, 1993).

> depending on which benchmark we utilise. The nice thing about a process like this is *….We have a view on absolutely everything out there, which is kind of a nice thing* [italics added]. (32)

However, in addition they do "due diligence" on their stocks:

> …so it's anything from talking to sell side analysts, calling the companies up themselves, attending conferences, really understanding what's going on in the industry.' … [If the] valuation metric really wasn't reflecting reality… *we just modify the ranking…*[italics added]

The fund manager here appears to trust but not trust the model. In psychoanalytic terms, this reflects the ambivalent object relations inherent to the investment process. Such ambivalence is reasonable given the endemic uncertainty of investment outcomes.

In another example, a fund manager employing this hybrid approach was asked whether his internal analysts actually add value. However, he was non-committal and defensive in reply: "Well, we do look at it occasionally, but not on a systematic basis." Such responses cast aspersions on the extent to which additional judgmental input adds value in practice rather than serving other functions, such as providing a level of comfort and confidence both to the fund manager and his/her clients.

Anxiety, panic and disappointment

It is clear from our interviews with our fund managers that their job is both highly pressurised and characterised by uncertainty. They are expected to outperform by their own organisations and their clients almost on a continuous basis, yet they themselves are aware of how hard it is to do this. Indeed, many interviewees clearly recognised that successful money managers may simply be lucky; in the right place at the right time. One interviewee sums this up while becoming very animated and resorting to somewhat colourful language:

> Most people seem to think you can perform, not just every year but every quarter or every month, and they're living in cloud cuckoo land, these people. And most managements in our industry don't have a bloody clue either, frankly. (50)

There were many other comments in a similar vein about the pressures with which fund managers have to continuously grapple. These demands were not just performance related, but also commercial, as the following fund manager describes:

> [L]et’s face it, short-term numbers, any academic look at it, you know that’s noise. People aren’t stupid but even though they know that, commercially it’s sometimes very difficult to behave in a way that’s rational. In a long-term sense what’s rational in terms of investment behaviour may not be rational commercially. That’s the problem. (21)

This pressure-cooker combination of the need to produce consistent results in an environment where future outcomes are inherently uncertain; and in the face of a number of extraneous variables that are impossible to control, engenders considerable worry, stress and anxiety. One of our interviewees, for example, describes these pressures and the associated emotions they generate very graphically using the metaphor of a juggler:

> At the end of the day you need a lot of luck in this job….We're never entirely confident. You never know. It's a bit like…. When I was a kid we used to go to the circus and I used to watch that guy spinning the plates and I used to think how does he do that? Sooner or later one's going to go and then he's going to try and get it and the whole thing is going to come crashing down upon his ears. And so yes I feel like I am the plate spinner and have been for a number of years, actually. (20)

Asset managers live in a state of anxiety; the following fund manager is typical:

> There is never a time when I don’t feel uncomfortable about pretty much everything, that’s just the nature of it, because when things are going well, you’re worried about them going badly, when things are going badly, you’re worried about how you’re going to turn them round. (19)

This interviewee then goes on to describe how he is worried about his model “which is having a difficult time”, his performance which “isn’t as strong as it should be”, his team “that isn’t as experienced as it should be”, and which he is having problems recruiting into, and also "underperformance causing a drop in morale". Another very senior fund manager describes the stress of the fund management task in a similar way:

> You're worried about keeping your team together, you're worrying about winning new business, you're worrying about your stocks, you're worrying about the results that are coming out the next morning normally. You're worrying about the structure of the portfolio….and that's what you spend 24/7 thinking about. You never really stop thinking about it apart from when you sleep, and then you dream about it (laugh). That's kind of the job though. It sounds awful. (50)

The pressure on fund managers to meet desired performance targets can easily lead to panic as one fund manager explains:

> And even if you were completely convinced you were right, even if you don't panic, your employer might panic or your clients might panic in which case, to be honest, bad luck. (21)

Importantly, there is a constant struggle to contain fund manager anxiety to prevent a state of panic taking over, as then all is lost:

> [W]e try not to do it [i.e., panic]. We do it rarely nowadays, but in the last ten years many times. You know when you panic, you know when you sell or you buy because of a certain panic. *Each time it's a bad decision, each time* [italics added]. (51)

> So, and you have to keep a cool head I mean, *the worst thing you can do is panic* [italics added], I think I am not that sort of person who panics easily. (49)

Panic, it appears, is something only other fund managers do. A further fund manager even describes how his ability not to panic when others are panicking is a major competitive advantage:

> So, where we add value, and…and we make our money is, when it is smoky, and there is a lot of panic and controversy etcetera. (38)

Another of our fund managers, who is responsible for tens of billions of dollars under management, perceptively employs a military metaphor in talking about his role in managing potential panic in his team:

> [M]y main problem in managing a team in this situation [of underperformance] is holding the ranks together so that people don't break loose and run. Because if you're getting hit and you're constantly under attack, and particularly if things are going wrong and they're getting worse, it's quite difficult to go that straight into the gunfire. (48)

It is unlikely this interviewee is familiar with the work of Wilfred Bion but he is describing the potential for fight/flight basic assumption group behaviour in his team when under pressure and performance is poor. He sees his role as ensuring his 'troops' continue to 'fight' the market rather than panicking, and turning to 'flight'. In this sense the market may be felt unconsciously like the enemy which is out to defeat you.[15] Another fund manager expresses this embattled feeling even more directly:

> So I think fund management is a bit like a battleground, and you want to choose the ground on which you are going to fight the battle [in terms of his choice of investment approach]. (17)

In their interviews our quantitative fund managers (and our quant./qual. ones to a lesser extent) claimed that one of the main advantages of the quantitative investment process is that it removes the debilitating effects of emotion and hence is more rational (and, thus, by implication more effective). However, interestingly, when talking about their models we find these fund managers are as emotional as our traditional stock pickers when describing their individual stocks, as well as being anxious in similar ways. Albeit this is masked to some extent by their ability to alleviate and displace their anxiety through the apparent power, sophistication and authority of their quantitative models. Here, their ambivalent object relations are with their sophisticated calculative systems rather than with their own intuitive decision making processes. In other words, the anxiety of quant managers is focused not on individual investment decisions but transferred onto whether their sophisticated models have got it right:

> We, we have people with tremendous quantitative skills around here and I think we are all deathly afraid of over-engineering and driving ourselves off a cliff edge with

[15] Bion's theories about basic assumption group behaviour and his use of military metaphors originated in his traumatic experiences as a captain commanding a platoon of tanks in the First World War (Sofer-Dudek, 2015).

over-reliance on the methods. (41)

[I]t’s all about we are a good mousetrap to catch these things but we never know when the mousetrap might malfunction. (26)

Worry, stress, risk, pressure to perform and disappointment are all readily accepted as concomitant features of fund manager work. Equally, it is recognised that this is the flipside of a career path that is, in addition to being financially very rewarding, also interesting, exciting and hugely stimulating. In their work routines, fund managers oscillate emotionally between feelings of love and hate for stocks, excitement and disappointment, as the following statements bear testament to:

You just tend to fall in love with stocks and hate stocks. (2)

Oh yeah. And fund managers fall in love with stocks …. Your original idea that you had on the train in the morning, you spend all day looking for reasons to justify why you’re going to buy this stock or whatever. (26)

So, it’s quite a simple story. It’s everything that UK fund managers hate because it’s perceived as a cheap brand. (12)

Often you do sell things that have disappointed and then bounced. (8)

In the last quote, disappointment is threefold: loss on the way down; loss as the stock recovers but is no longer held; and, implicitly, with the fund manager himself in that his original investment decisions were correct, but he had not been able to stick with them. In fact, fund manager disappointment is a very common theme in our interviews. Specific stocks, managements, industry sectors and markets all frequently disappoint when they don’t behave in line with expectations or the fund manager’s investment thesis. Equally, asset managers become prone to self-doubt as the following interviewee illustrates:

I mean the problem with active portfolio management [conventional stock picking] is that if you have a share price continually going against you, you start to doubt your own thesis, and your own conviction. So it is a grinding experience, and it can be very stressful … I mean that’s [a] kind of disappointment [that I have with myself]. (6)

These oscillations between love and hate or excitement and disappointment are indicative of a certain degree of manic behaviour – in a manic state people will often disparage objects, showing a partial detachment from or dislike of them, at the same time as they exhibit hunger for them (Klein, 1935, p. 163). A routine response to this ambivalence might be to split the excitement from the anxiety in a paranoid-schizoid state of mind.

Overall, the actual process of stock selection is complex and multifarious. Investment decisions depend upon judgements about available information in an attempt to resolve two different types of uncertainty: information asymmetry ('somebody knows but I do not') and the fact that the future is unknowable ('nobody knows'). As one fund manager puts it:

> [A] the end of the day we are in a business where it's *caveat emptor*, however much you know about a business you are an outsider. (17)

Hence the vital role meeting company management plays for many fund managers, which our data suggests in many ways resembles a search for the ability to trust, something we explore in detail in a later section.

Projecting emotion onto other investors

Although readily describing the anxiety that they experience on a daily basis, emotion *per se* is routinely portrayed as 'bad' by our fund managers, something that is to be actively suppressed and sanitised against. In this way more sober, rational decisions can be made about the relative value of a particular stock. Indeed, according to our interviewees, being emotional was something that *other* investors did, whereas *they themselves* were, in the main, rational. For example, the following fund manager talks about the emotions of his colleague getting the better of him:

> I guess there have been a couple of instances, without naming any, where my colleague has reacted on emotion, when it's been fairly obvious, and he will admit it. He's seen a share price reaction and I've said, well, nothing's changed. We're happy with this and let's stick to it, but he's said, I've had enough. Now, that's happened and I was disappointed in myself, not him, but I was disappointed in myself for not actually convincing him, and putting numbers in front of him, saying, look, this still holds. (6)

He blames himself for his colleague's succumbing to emotion, holding up 'numbers' as the way to transcend this. However, in denigrating and distancing oneself from emotion in this way, our interviewees curiously succeed in drawing attention to the importance of emotional factors in their work. For example, a common theme to emerge is that making money on stocks is best done by being contrarian, i.e., by being able to predict when the rest of the market has, 'got it wrong'. In analysing our interviewees' contrarian strategies, we see the interplay of emotional factors with calculative rationality. Consider the following quote from a quantitative fund manager:

> As you said, when you come with a quantitative angle you approach things a bit differently from people who would do it purely instinctively or judgementally.… So, for example, one of the [my fund's] strategies obviously tries to measure something called risk aversion … so you should be investing your money when everybody's *scared* and removing your money when everybody gets *complacent*. So it's a very contrarian strategy. (31, *emphasis added*)

Fear and complacency are clearly emotive, whether viewed by the fund manager in question or experienced by those who have putatively misread the market. In either case, this points towards the fundamental importance of fund managers being able to navigate emotional contours in the work that they do. All our fund managers are very well aware of this and most describe in their interviews how they tried to deal with such issues and avoid being 'carried away' and making 'emotional trades'. This point is illustrated directly by our very first interviewee in blaming an investment he got wrong by making an emotional decision:

> It was an awful trade. The emotional trades are the worst trades, and the easiest trades are the worst trades; the hardest trade you make is the best trade. (1)

Another fund manager claims:

> I never bring emotion into investing. [But then he continues in the same breath:] Of course I do from time to time, but I know I shouldn't and I try not to, whereas I know a lot of people do. (6)

Even if this fund manager finds it difficult to be dispassionate, he still implies that others are far more emotional than he is in their investment decisions. A third fund manager describes the ideal state to be in when making investment decisions as one of being in "emotional control" however difficult this may be:

> I'm a big, big believer in what I call emotional control, and that's being aware of what the market is worrying about and what is driving the market, but being detached, and

> dispassionate about it. So, you've got to be very cold at the point of decision making. You've got to be above it, not in it, … although it can be very uncomfortable … you are usually very much in the minority …. (48)

'Contrarian' strategies are key features of both quantitative and conventional investment decision making processes. Taking contrarian positions is seen as necessary to make money, even if difficult to execute in practice. However, reflecting both an underlying ambivalence and the *realpolitik* of client management, there is a need to be both contrarian and non-contrarian at the same time, as one traditional fund manager points out:

> Well, you are being paid to take contrarian positions, because that's how you're going to make money. But the client's confidence in your being able to take those positions can only be built up over time, and it's quite ephemeral and very easily lost. And if you're in client rebuild mode, you need to show the performance, therefore you need to be contrarian. But, you cannot be too contrarian, because their tolerance for it is minimal. (19)

As can be seen, our interviewees often recognise that financial actors are susceptible to emotion, but believe they can inoculate themselves against it, thereby projecting irrationality, emotion and panic onto *other* investors. Many interviewees conceded to having made mistakes, but these are typically cited as learning experiences rather than generalized phenomena. Being able to determine when other market participants are prey to emotion is viewed as an important source of value creation. So emotion is the preserve of others in one sense and, in another sense, recognition of this is a competitive advantage for those who are able to be *supra*-emotional and see things from a more rational and "scientific" perspective. In other words, our interviewees saw themselves as able to both identify and transcend irrational, herd-like (i.e., basic assumption group) behaviour and profit from this.

Calculating out anxiety

In an earlier section, we described the different investment processes our fund managers employed classifying, them into three broad types, 'pure quant.', 'quant. and qual.' and 'qual.'. However, irrespective of investment approach and method taken, all fund managers make recourse to calculative devices for both fund management and emotion management purposes. It was clear from our interviews how the formal (calculative) systems or processes our fund managers subscribe to are a necessary means to impose order and belief on an uncertain and unpredictable investment environment. By providing some structure and framework they help to alleviate anxiety. A start-up quantitative hedge fund manager makes this point directly:

> And it's a bit like… so, yeah, I need a framework to look at the world, … and with my models I create the framework to look at the world, so I've got a more calm relaxed view of the world than if I had absolutely no tools to look at it. You see what I mean? (31)

The last sentence can be interpreted as the fund manager seeking to reassure himself as much as being directed at the interviewer. A conventional fund manager makes a similar point about the nature of his calculative process, using the nautical metaphor of how it helps "him ride out market surprises" (or continuing the metaphor, its emotional squalls and storms):

> …but the advantage of the process you apply rigorously, it does give you more of an anchor under pressure, because if you're following that and keeping to that, you are less buffeted about by fear or surprise… (49)

A number of our interviewees recognise, whether consciously or not, how the existence of a putative formal and systematic investment process, however flexible in practice, is almost more important than whether it actually generates investment returns. In many cases, the psychological purpose of such a process implicitly seems to dominate its ostensible role, as the following interview extract illustrates:

> … [T]he key thing is really to have one process that works, or one process you stick to, rather than one process that works. It's consistency of approach which generally yields the results. (7)

In fact, it can be even more important to follow the house's formal investment process than getting investment decisions right:

> … *What would limit your life expectancy here is* … to run counter to what we stand for and *to work outside the process*….but if that process results in something not working out properly then you shouldn't get too hung up on that. What's more

> important is that people behave in accordance to what we stand for. (51, *emphasis added*)

Belief or faith in their investment system is key, and an important way in which fund managers are able to cope with the anxiety associated with the underlying uncertainty they have to deal with and make sense of. The fund manager's process can be likened to a faith and in a similar way serves to provide comfort in an uncertain world. Unlike trust, faith, which is accompanied by "idealisation" and "illusion", does not need reality testing or verification, only solid conviction (Neri, 2005). The following quote, which manifests quite a degree of self-insight (note the double drawing of religious parallels and laughter) illustrates this point clearly:

> No, over the years you build up a quasi-religious attitude towards what you do, and that gives you comfort [laughs] like religion does…. It's also intellectually robust. (28)

As long as there is an apparent investment process or philosophy the fund manager subscribes to, he or she can still contradict this. For example, one of our interviewees has an investment strategy which is to invest on a three-year time horizon. However, in spite of this, he is nonetheless happy to take a "punt":

> But, I think, with investment you've got to be flexible; I think I've got a strong philosophy, but, I think, I've also got an element of flexibility. I'm quite happy to have a punt on something on a slightly short term view because I think it's the right place to be. (17)

As we have seen, the calculative techniques employed by our fund managers are, in most cases, overlaid with judgement, which invariably leads to more subjective, or intuitive, revisions to the formal outputs of their investment processes. Typical is one global fund which has a rigorous process of modelling and ranking potential stocks to invest in:

> ….then we discuss which ones [stocks] go into the portfolio, and at what level in terms of weighting, within the total portfolio…There's an awful lot of interaction all the way … And I myself go and visit an awful lot of companies with analysts …. So, that's how we sort of *manipulate* the information and *filter* it, and at the simplest level, come to decisions. That's the mechanics. (18, *emphasis added*)

Here we see how formal quantitative information is transmuted into something far more informal and subjective, constituting something akin to what Beunza and Stark (2012) refer to as 'reflexive modelling', or what Actor Network Theory (ANT) theorists refer to as 'qualculation' (Cochoy, 2008). What is not obvious, though, is how certain metrics or arguments are privileged over others in this process.

The following discourse of a conventional fund manager describes the qualitative inputs to stock selection he employs. He strives to characterise these inputs as rational and scientific:

> The discussion is then in deciding whether we should override the model, framed by a judgemental overlay, and the judgemental overlay itself is *highly systematic*, because a lot of people fool themselves they have a quantitative model for their decision making, but then say yeah, then we use *judgement*. So, they're just kidding themselves. So, we decided many years ago that judgement could be quite *pernicious*, and you have to be very careful of it. … The model is not allowed to have input from us, *because that would make it subjective*. So, the model is only third party data, *it's objective*, but we have a very large team of analysts based around the world and therefore *we have our own opinions* about earnings growth. (19, *emphasis added*)

The fund manager here is very suspicious about "judgement", and describes how his model is "objective". However, he then immediately goes on to describe the importance of his analysts' opinions which, of course, are a matter of subjective judgment. Somehow, having a calculative model, even if then contradicted in some way, seems to assuage anxiety. As with many of our fund managers, such a flight to calculation represents a defence against the anxiety of having to face up to uncertainty. Another way of putting this is that calculation constitutes a 'good' object that fund managers cling onto, internalise and take flight towards. "…[The] ego attempts to make an end to all the sufferings … (*a*) by a 'flight to the good, internalized object' …. [and more importantly for our purposes here] (*b*) *By a flight to external good objects as a means to disprove all anxieties—internal as well as external*." (*emphasis added*) Klein (1935, p. 174).

However, in another sense, as we have seen, fund managers equally appear to be taking flight *from* calculation. They need to feel that they, rather than their models, are ultimately responsible for generating alpha. This point was clearly made by one fund manager on the basis of his own direct experience:

> Well it is very interesting that most fund managers, or a lot of fund managers, have these models and the model comes up with an answer and then the model does better than the fund manager. And that's because fund managers hate to believe a model can do better than them. (50)

This fund manager suggests that investment decisions are not so much scientifically derived as they are the products of fallible human judgement. Indeed, the assertion that "the model does better than the fund manager" suggests that contradicting the model is not, in fact, the most rational thing to do.

All of our fund managers subscribe to a formal (calculative) process which they believe, if followed, should lead to superior investment performance. However, in contrast, we observe how this is often over-ridden in practice. This section shows how fund managers have an emotional relationship with their calculative techniques and the key role these techniques play in driving out anxiety. Bion (1970, pp. 66;76) notes that individuals often need to feel as though they are the masters of their own fates, individuals rather than herd animals. This may explain why fund managers also consistently contradict their own calculative processes. There is an inevitable tension between the flight to calculation to assuage acute anxiety and the fight with calculation to meet the needs of the ego. In addition to this relationship that fund managers have with their calculative techniques, another way in which they assuage their anxiety involves face to face contact with those whom they believe influence investment outcomes: company management.

Trusting company management

We have thus far argued that emotion is inextricably intertwined with calculative approaches in the work of the fund manager, and that this constitutes an ego defence against anxiety. Yet, even though claiming that they themselves are able to transcend emotion, fund managers highlight the importance of emotional factors in arriving at their investment decisions. Despite attempts to distinguish themselves from the crowd, fund managers need routinely to defend themselves against the anxiety that pervades their work environment. However, the toing and froing between calculation and emotion suggests that they are never completely successful in this regard.

A further dimension of fund manager work we observe in our interviews is the way in which fund managers interact with company management. Fund managers look to those running companies in which they invest, or are seeking to invest in, in order to help allay anxiety about future stock returns. They do so by projecting responsibility for investment performance onto firm managers, which of course requires those managers to be omniscient and omnipotent and, thus, liable to disappoint. Such dependency is intertwined with the need to trust that corporate managers are able and willing to generate investment returns for them, and with this goes the associated fear of being misled or let down (Neri, 2005). This, we suggest, can help explain the importance fund managers place on meeting company management and the resource and energy they expend in seeking to judge its quality, and whether they like and trust them or not. However, trust equally leads to *vulnerability* as the fund manager is relying on a third party, typically the firm's CEO, in an environment where outcomes are uncertain (Shapiro, 2012). Fund managers have to trust their own ability to assess the reliability, effectiveness and trustworthiness of a company's management team. As Barbalet (2009) points out: "The basis of trust, then, is the feeling of confidence in another's actions and also confidence concerning one's own judgement of another. Thus there is a double confidence within trust" (p.375). Thus anxiety, exists on two levels in such interactions: anxiety over one's ability to make judgements and anxiety over the other's trustworthiness.

As the giving of trust essentially involves entering into an asymmetric dependency relationship (Barbalet, 2009), interactions between trustor (fund manager) and trustee (company management) are crucial in facilitating this. In fact, our data suggests that, for many of our interviewees, being able to trust the 'other' to deliver (for them) is the *sine qua non* of their investment process. This point is clearly made, albeit perhaps unconsciously as his somewhat embarrassed laughter demonstrates, by one fund manager who tells us:

> I try to find companies where, you know, management is doing the heavy lifting as opposed to me (laughs). … [S]o I know that I need a management that I can trust, and, you know, I think very highly of … to get me there. (40)

In the following extract, which makes a similar point, the metaphor of the horse race comes to mind:

> Ultimately what you are backing is management, management, management. (8)

The horse race metaphor is interesting here. While clearly some horses and jockeys are better than others, as is broadly reflected in differential betting odds, the outcome of the horse race is ultimately uncertain. Moreover, those who bet on horses are not seen as investors, but gamblers.

As noted elsewhere (e.g., Barker et al., 2012), their ability to meet with company management is seen by fund managers as a major source of competitive advantage or the 'value-added' they can provide their clients. We find this to be the case in our study as well, as the following representative quotation confirms:

> [W]e gain informational advantage over our competitors because we do the extra mile on due diligence [i.e., visiting companies]….I speak [several] languages so I'm able to go and spend 6 hours with a Brazilian bank and that's typically what I do. … So in January I was in [Outer Mongolia] visiting an oil and gas installation. … A year ago, I was in [Kazakhstan] for the second time in three years …. (44)

Indeed, in all of our interviews with fund managers, there were only very infrequent dissenting voices on this topic, including the following fund manager:

> I mean, you see management because it's part of your sales pitch that you meet management, and therefore you understand the company. I don't buy management, I buy investments. … Managements come and go, they lie, and they often have the incentive to sell their own company and talk up the share price. It makes sense. (6)

This latter quotation highlights the emotional ambivalence between trusting and distrusting that fund managers face when meeting firm management to assess their 'quality'. Being able to trust management, and not being let down, is key to investing. One interviewee describes this predicament very clearly in rather colourful language:

> Yeah, it's very simple. The first and foremost thing is to find out whether you can trust the guys. So, that's face-to-face meetings, that's looking at track record, that's looking at whether they've legged over (sic) shareholders in the past, that they truly are concerned about the shareholder value … rather than to go off and do things for themselves. (7)

As the above quotes imply, meetings between fund managers and company management play a major role in investment decisions. However, we still know rather little about what takes place in these meetings from extant literature. Roberts et al. (2006) go some way toward remedying this by highlighting the disciplinary function of such meetings, although the way they meet the psychological needs of the fund manager is only implicitly touched on. As intimated above, we are less interested in what these meetings do for corporate executives than unpacking the role of these encounters in assuaging fund manager anxiety.

Time and time again our fund manager interviewees told us how judging the quality of company management is of fundamental importance to them:

> The quality of management is the single most important thing. (44)
>
> And, you know, based on my experience, my 18 years of experience, what's the critical important thing to me, within this industry? … You know, it's management quality…. (39)

Face-to-face meetings with the CEO, CFO and other senior personnel are absolutely crucial in making these assessments of management quality. For example, echoing Roberts et al. (2006), one interviewee, tells us how "it's all about kicking the tyres and [looking into] the whites of their eyes" (6). Fund managers need to decide whether or not they believe what the company is telling them and can trust its management in an environment of inherent (mutual) wariness and dependency. This cannot, we were told, be done by simply looking at the numbers themselves:

> It's just sitting across the table from the guys and you are making a judgment about their honesty, integrity, and their ability. (10)
>
> Well, first of all, if they look like a crook, they probably are. I'm not sure that that's something that people always subscribe to. And if they're terrifically good presenters and charismatic... you know, you have to distinguish... a leader needs to be a good presenter, but so do snake oil salesmen, you know, how could I get conned by him, he was so plausible! Well, obviously that's his job, you know, he's a conman! (23)

Barker et al. (2012) note how the communication of economic information does not seem to be the main purpose of company/fund manager meetings. We find the same in our interviews and, based on our data, would argue that these meetings are crucial in mitigating fund manager anxiety, as the following insightful quote attests:

> [I]t's a bit of a sniff test… Management contact is one of those things where I think we often do it to make ourselves feel better. (12)

Fund managers come away from such meetings feeling as though they have a more "sophisticated outlook" (Bion, 1961, p.90), even though no new information should be disclosed.[16] Yet this 'sophisticated' outlook is crucially dependent upon determinations of 'trust', something which is

[16] It is possible and plausible that another motivation for meeting management is nevertheless to glean inside information. However, our data unsurprisingly does not corroborate this.

itself a slippery concept. There is clearly a lot going on in such encounters. Despite the intensive preparation and careful rehearsals for such meetings which Roberts et al. (2006, p.284) describe as a "time consuming investment in theatrical self-presentation" by typically the firm's CEO and CFO involving "careful cultivation of looks and interpersonal 'chemistry'", our fund managers still seem to believe such things as the subjective interpretation of "body language" play an important role. Moreover, fund managers accord themselves a somewhat heroic ability to decipher executives' body language, as the following representative quotes illustrate:

> [T]here is something, what I call body language. So you try to assess how confident they are. Do they actually know what they are talking about? (43)

> Body language is important. And you can feel, I mean, I'm sure you know about it, whether somebody is telling the truth or not telling the truth. (30)

In summary, our interview material demonstrates just how far from the putatively rational realm of financial calculation and modelling fund managers go in order to alleviate their anxiety. Deciphering the body language of company executives is important for generating the trust and, in turn, conviction, necessary to make investment decisions.

Discussion and conclusions

In this paper we explore what fund managers do when they make investment decisions, the role calculative techniques play therein and, more generally, how they make sense of the environment in which they operate. Given this environment is characterised by endemic uncertainty, we pay particular attention to the anxiety that this engenders and, crucially, how fund managers cope with this.

Fund managers see themselves in a continuous battle with the market and competitors in their attempt to earn alpha – above average market returns – for their clients. Their performance is measured in terms of the investment returns they generate, in an environment characterised by uncertainty and opacity, and where it is not clear whether good performance is the result of skill or factors beyond the fund manager's control. Formal acknowledgement of the high levels of anxiety asset managers have to deal with in their work, and of the various ways in which they cope with this, are themselves important contributions to our understanding of investment decision making. Hitherto, neither anxiety nor the unconscious have featured adequately in theorisations of fund manager behaviour. Recognising the vital role emotions and mental processes (both conscious *and* unconscious) play in investment decision making helps significantly to advance our understanding of fund management work beyond both traditional and behavioural approaches.

If anxiety is ubiquitous in investment decision making, then this presents a whole new set of problems that financial actors have to contend with. These might be summarily grouped under the umbrella of 'anxiety management'. In other words, fund managers don't just manage funds, they also have to manage their own anxiety. They defend against this in various ways, operating in a paranoid-schizoid state of mind. The first defence mechanism we identify from descriptions of their investment processes is the process of *splitting*, asset managers variously trying to isolate themselves from what they perceive to be 'bad' objects. Secondly, fund managers engaged in *projection*. Through the articulation of different contrarian investment strategies, emotion is described as something that is largely the preserve of other, more naïve investors. Thirdly, fund managers are involved in *denial*, convincing themselves that it is possible to 'beat the market' on a consistent basis. In this respect, our interviewees simultaneously "knew and at the same time did not know . . . [and] turned a blind eye to the facts." (Steiner, 1985, p.165).

Finally, our fund managers, whether qual., quant. and qual. or quant., engage in collective basic assumption group behaviour, in particular *fight/flight* modality. Paradoxically, they *fight* the malign tendencies of the market by routinely fleeing to elaborate calculative techniques that ostensibly view investments from a more objective, scientific perspective in an attempt to keep panic at bay and avoid the fear of being overwhelmed by emotional contagion. However, fund managers equally recognise that other market participants develop similar models and thus such a collective flight *to* calculation undermines any attempt at implementing a contrarian strategy. Individuals often need to feel that they are omniscient, omnipotent and masters of their own fate (Bion, 1970, p. 76). Simply doing what everyone else is doing is another major source of anxiety for fund managers. Therefore, in first making a flight *to* calculation to avoid being caught up in common group behaviour, fund managers then fight *with* calculation by contradicting their own models, thereby arriving at a distinctive investment decision.

One key way fund managers seek to reassure themselves is to engage in face-to-face meetings with firm management in an attempt implicitly to offload the task of generating superior investment returns onto them. In this way, responsibility for doing this is shifted from the fund manager so he can blame the firm for letting him down and therefore not have to question his investment process. In some sense, this represents yet another flight *from* calculation – conventional fund managers are not yet fully convinced of their own views and so need to be sure about the assumptions that they have made. This sense of security can be achieved, we were told, by looking into the whites of the eyes of senior executives and reading their body language. In what is surely a delusional process, the fund manager tragi-comically substitutes the difficult task of identifying undervalued or overvalued stocks with the subjective judgment of whether the CEO or management team can be trusted.

What does formal recognition of these psychological defence mechanisms do to enhance our understanding of investment decision making? It is clear from our interviewees' responses they are fully aware on one level it is not possible to attribute good fund performance to individual investment decisions with any degree of certainty. As such, all that fund managers can do is to convince themselves and those who measure their performance (clients, employers, financial journalists) that they are behaving in a way that might plausibly be conducive to the generation of superior returns. Fund managers rely upon their formal calculative processes and routines to display elements of a rational, scientific *modus operandi*, but contradict these same calculative processes intuitively to display elements of a distinctive approach. In the case of calculative processes, this demonstrates the performative power of dominant approaches to investment decision making which presume that error and bias can and should be transcended. In the case of individual, distinctive judgements, this indicates a need to believe outperformance is still possible despite all the evidence to the contrary. Both combine to produce an idealised romantic figure at the heart of the whole asset management process: the alpha-generating fund manager.[17] Yet we suggest here that fund management may not be primarily about managing funds or generating alpha so much as it is about managing the anxiety that fund managers themselves, and their clients, experience.[18]

While behavioural theorisations present calculative processes as a credible means of improving investment decision making by eliminating bias, 'calculation' might alternatively be conceived as a means by which fund managers, and those around them, believe they can control the future through the agency of their calculative techniques. Calculation, on this basis, is really more about helping to suppress the notion that the future is uncertain. As Knight (1921) presciently

[17] Interestingly, even the recent Financial Conduct Authority (FCA) report in the UK, which is highly critical of the fees charged by active managers despite their underperformance, nonetheless appears to believe systematic outperformance is still possible.

[18] The prevalence of psychic defences against anxiety can shed light on yet another aspect of the investment industry – resistance to change. In a study of nursing routines and anxieties nurses face in hospitals, Menzies-Lyth (1960) postulates that resistance to change is "likely to be greatest in institutions whose social defense systems are dominated by primitive psychic defense mechanisms", in other words the paranoid-schizoid defenses described earlier. Looking at the similarly anxiety-generating environment that professional investors operate in, we can understand the parallel resistance to necessary change in the asset management industry.

pointed out, risk can be reduced through calculative routines, but the more expansive and unsettling category of uncertainty cannot.

Nevertheless, subscribing to the idea that there is a formal decision making process that can generate alpha is understandable given the pressure that fund managers are under to predict and anticipate future events. Denial might actually be functional and an entirely 'rational' approach to take for individuals seeking to pursue a 'successful' career as fund managers. The alternative would be to simply admit that the future is unpredictable and that the active fund management industry, as currently constituted, has little to offer the investment community. Thus, misrecognising one's own chronic inability to outperform the market is a *sine qua non* of working in the fund management industry. In this respect, the various defence mechanisms identified above are as much the product of a conscious and skilful coping strategy as they are unconscious reactions to internal feelings of threat and danger. As the psychoanalyst John Steiner (1985) points out "We can only carry on our lives as normal by turning a blind eye" (p.169). This is equally true for fund managers. Although they cannot 'do' what they are required to do, which is ultimately to generate superior returns on a consistent basis, in this way they are still able to 'do' in the sense of turning up for work each day, making investment decisions and seemingly enjoying the challenge of their jobs. An industry-wide basic assumption group "collusion" or "cover up" is an integral part of this process.

Although not the main purpose of the present study, we might usefully speculate as to why investors choose to invest via fund managers, even though the latter tend to underperform the market net of fees. Gennaioli, Shleifer and Vishny (2015) suggest that investors are looking for investment managers whom they can 'trust'. Similarly, Giorgi and Weber (2015) show how investors appreciate financial intermediaries with framing repertoires that resonate with their own discursive understanding of the world. In this sense, fund managers might be something of an emotional crutch for investors, not managing funds so much as managing expectations, constituting an object themselves onto which different emotions and anxieties can be projected.

Importantly, fund managers perpetuate the myth of economic rationality in order to defend themselves against the uncomfortable reality that the future is ultimately unpredictable and unknowable. Were these perfectly appropriate feelings of anxiety formally acknowledged rather than being strenuously, albeit ultimately futilely, denied investors would be better able to enter into the necessary emotional dependency relationship with the fund manager (Neri, 2005), engage with the market and deal better with its volatile performance over time. In an industry operating in 'work group' mentality (Bion, 1961), the associated sense of safety and reassurance provided to investors and society more generally that their savings are being carefully and properly managed would have considerable benefits. The ability to trust 'trumps' anxiety and leads to the necessary action to commit. If less psychic energy was invested in defending against the underlying reality that it is not possible to outperform on a consistent basis over time except by luck, the asset management industry would be in a better position to meet the real needs of its clients, including their psychological needs.

Adapting Bion's (1970, pp. 72-83) conceptualisation of the "container-contained", as well as fund managers being contained by their calculative processes they also play the role of container intuitively in touch with and bearing investor anxieties allowing then to "feel understood". This is similar to the mother-infant relation where the former absorbs the anxieties and worries of the latter (Hinshelwood, Robinson and Zarate, 1999, p.152). Winnicott's (1960) "holding environment", the attentive holding relationship between mother and child providing a sense of predictability and safety about the world, can equally be used as a metaphor for a key role the fund manager plays in financial markets. In turn, a fundamentally important and underappreciated role of the fund manager might plausibly be to alleviate the underlying anxiety both of the employer and investors, who themselves will also experience the anxiety associated with investment returns being uncertain. The way in which the fund manager does this is by implicitly offering the illusory 'certainty' of outperformance. Sometimes the mother can carry the tension of the baby, but sometimes she is sent into her own panic, so with the fund manager. Future research with individual investors rather than fund managers might usefully explore the underlying reasons as to why they place their money with financial intermediaries rather than simply in low-fee, passive (index-tracking) funds.

Finally we suggest that understandings of the work performed, and roles served, by other groups of financial actors such as auditors, financial analysts, tax accountants etc. would also benefit from interrogation from a psychoanalytic perspective. The increasing emphasis on social and cognitive psychology in the social sciences tends to obscure the important roles played by the unconscious in all socio-economic activity (Bargh and Morsella, 2008). While financial actors accrue the symbolic rewards associated with being seen to embody 'expertise' and 'professionalism', it is important to understand the complicated mental and emotional processes that underpin their activities and, by extension, to draw attention to not only the *limits* of economic understandings of market behaviour, but the ways in which such understandings produce radically *distorted* representations of economic action.

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