How much Trust can Economists Cope with?



WHY OLIVER E. WILLIAMSON
DISTRUSTS THE CONCEPT OF "TRUST"

Erasmus Institute of Philosophy and Economics (EIPE), Faculty of Philosophy, Erasmus University of Rotterdam

Research Master thesis by Darian Heim

Student Number: 36402210

Supervisor: Prof. Dr. J. J. Vromen

Advisor: Dr. H. C. K. Heilmann

3rd reader: Prof. Dr. I. A. M. Robeyns

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Table of Contents

1. Introduction	4
1.1 Trust, economics, and the question of pervasive calculativeness	4
1.2 Some words about motivation: trust, the economic crisis and delineation	6
PART I: THE CONCEPTS OF CALCULATIVENESS AND TRUST	8
2. Calculativeness: maximise in an uncertain environment	9
2.1 Rationality: how to be bounded and yet farsighted	10
2.1.1 The locus of such rationality: proximate vs. ultimate explanation	11
2.1.2 Evolutionary bridging: why rational behaviour ultimately survives	12
2.2 Opportunism: the guileful pursuit of self-interest	14
2.3 The pervasiveness of calculativeness	
3. The "elusive" notion of trust – where calculation stops and morality enters	17
3.1.1 Trust and control: can trust and monitoring be reconciled?	
3.1.2 Trust as an emotion where there is no place for rationality	19
4. "Calculative trust" – do not risk to rely on trust	22
4.1 "Personal trust" within Williamson's typology of trust	22
4.2 Williamson's distrust on trust	23
4.2.1 Competent calculativeness: risk all over the place – no space for trust	
4.2.2 Safeguards as a consequence: how contracts save us from ourselves	
4.2.3 The need to economise on trust: save on a luxury you cannot afford anyway	
PART II: THE LIMITS OF CALCULATIVENESS AND TRUST	29
5. The limits of calculativeness: where business as usual can go wrong	30
5.1 The necessity to discern these limits: why we should care	30
5.2 The locus of those limits: where context matters	32
5.3 Unintended effects & dysfunctional consequences: struggling with reality	33
6. Limits of "personal" trust: non-calculativeness stops where business begins	35
PART III: THE PERVASIVENESS OF CALCULATIVENESS AND TRUST	38
7. THE CALCULATIVENESS OF NON-CALCULATIVE TRUST: WILLIAMSON'S BACKDOOR	39
7.1 The boundary between "internal" and "external" understanding of trust	39
7.2 Trust as a pragmatic and active wager rather than an ex post rationalisation	42
8. THE LIMITS OF WILLIAMSON'S PERVASIVE CALCULATIVENESS	46
8.1 How the limits of calculativeness are (not) "folded in at the design stage"	46
8.2 Calculativeness vs. trust – which one is without alternative?	48
8.3 Williamson's theory: simple and general rather than detailed and deep	49
9. The dilemma of pervasiveness	51
9.1 Pascalian conditions	51
9.2 Why little is lost and much gained by not insisting on pervasiveness	
10. Conclusion	
11 RIDI IOCDADIIV	57

1. Introduction

1.1 Trust, economics, and the question of pervasive calculativeness

Trust is as pervasive as it is crucial to economic exchanges. It is "capitalism's secret sauce" (Henry & Kotlikoff 2010), "an asset crucial to production" (Sapienza & Zingales 2012), "one of the most valuable economic assets, hard to create but easy to destroy – a crucial ingredient of a country's social capital" (*The Economist*), or even "...the invisible glue that binds society" (Blackburn 2005, p. 370). For Nobel prize winning economist Kenneth Arrow (1972, p. 357), "[v]irtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time. It can be plausibly argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence." There is an agreement about the centrality of trust to the economy. But how is trust dealt within economics – is or can it be addressed altogether with economics' established methodology?

The organisation theorist and economist Oliver E. Williamson (1985, p. 405n20) notes the following in a section on "Dignitary Values and Trust": "[t]he calculative orientation that economists bring to bear advantageously ... may be a disability on this." Economists pursue a typical calculative and maximising approach of a "rational spirit". They are hence not suited to deal with "trust" as an optimistic and thus not necessarily "calculative" attitude of expectation towards another party – trust cannot be traded on a market Moreover, "[c]alculativeness can get in the way of trust" (ibid., p. 405). For him, if trusting people assess their relationship and situation through calculative glasses the nature of the initial trusting attitude can be changed and its beneficial outcomes might fail to come about. Although "operationalizing trust has proved inordinately difficult", according to Williamson, he seems optimistic about this possibility. But it could not be pursued in the way economists usually tackle things: "A noncalculative orientation may help to unpack the issues" (ibid., p. 406).

Williamson takes up the project of "unpacking" trust in a later (1993) and extensive paper dealing mainly with trust.² But the conclusion of his paper suggests that he has abandoned his initial orientation: in W93, most occurrences of "trust" are reduced to instances of efficient risk-taking, i.e. calculative utility-maximising. Take, for instance, a craftsman who "trusts" his subcontractor to deliver the required parts on time and in good quality. In Williamson's view, the craftman's trusting attitude is *calculatively* rational only if contractual precautions are taken (e.g. liability for losses incurred through delays, warranties on products, conditional outlook for a long term contract dependent on good performance) to disincentivise a potential inefficient and undesirable default by the subcontractor. In the account of W93, to "trust" is warranted only if the underlying risk calculus is positive, i.e. the potential loss outweighed by the potential gain. The former needs to be minimised and the latter maximised.

¹ Cf. Williamson (1985, p. 405): "Both lawyers and organization theory specialist" – and scholars of other fields, I hold – "are more sensitive to dignitary values, especially as they are embedded in the governance process, than are most economists. Although dignity is enormously difficult to operationalize, the importance of deepening our knowledge of economic organization in dignitary respects is enormous."

² I.e. "Calculativeness, Trust, and Economic Organization." published in the *Journal of Law and Economics*, **36** (1): 453 – 486. Henceforth we shall refer to this article with "W93" for reasons of brevity.

However, Williamson also addresses the limits of such "calculativeness". He postulates a class of relationships that are not and ought not to be considered calculatively. Such cases of "personal trust" – i.e. "very special relationships between family, friends, and lovers" (W93, p. 484) – are inherently non-calculative. If, for instance, a husband trusts his wife to be faithful, then no calculativeness must underlie this attitude. For if it did, if the husband was trading off risks, gains and losses; then the "all-or-none" condition of the relationship – how it is internally perceived and lived by wife and husband – would be undermined (Williamson 1993b, p. 147). Their loving relationship would stand under continuous scrutiny and become comparable and potentially replaceable, it would lose its sense of uniqueness and thereby its fundament would be destroyed. A fundament which creates the desirable positive effects of such trust in the first place; e.g. stability, reliability, or loyalty. Because such personal relationships are inherently non-calculative, the potentially dysfunctional and inefficient excesses of calculativeness are mitigated and the undesired transforming interaction effects are avoided. But, because such relationships are prevented from becoming less efficient, their categorisation and perception as non-calculative becomes calculative again. "Calculativeness is thus pervasive" (W93, p. 459).

But, why and how can non-calculative personal trust be calculative again? This is the question I will address in this thesis while presenting W93's approach to trust. This thesis will reconstruct and analyse the implications of W93's application of "calculativeness" to trust. My aim is on the one hand to defend his approach from certain types of criticism and on the other, to specify and delineate the limits to calculativeness more completely and consistently. I will defend the following claim here: Williamson's nuanced account of trust is stronger and more compelling if calculativeness is assumed *not* to be pervasive – moreover, he cannot have a consistent account of non-calculative trust *and* defend a genuine pervasiveness of calculativeness.³

If this is true, then Williamson cannot have his cake and eat it too – either calculativeness is pervasive or it is not. He has to choose either horn in a dilemma where there is no non-calculative "personal" trust, or calculativeness is not pervasive. I shall argue against Williamson's pervasiveness of calculativeness for the following reasons: a) the centrality of the internal (proximate) beliefs inherent to situations of trust can be acknowledged, b) a non-redundant genuine account of interaction effects is possible, c) a substantial and realistic account of *bounded* rationality is provided, d) the limits of calculativeness (i.e. where metering is not impossible or senseless) are truly recognised, and e) the non-calculative emergence of cooperation and trust can be accounted for without recurring to artificial and redundant ex post rationalisation.

This thesis is organised around three parts dealing respectively with the concepts, limits, and pervasiveness of both calculativeness and trust. Parts I and II are – where not stated explicitly otherwise – descriptive and provide a uncontroversial contextualisation of W93's account on trust. In a decidedly evaluative and normative part III, I will argue against the pervasiveness of calculativeness. Section 2, more concretely, introduces the characteristics of Williamson's "calculativeness". In section 3, I will zoom out and consider the wider notion and context of trust as discussed mainly in moral theory. This section will allow us to contrast W93's approach to trust with decidedly non-calculative accounts – accounts, he takes up and argues implicitly against on the basis his predominant account of (pervasive) calculative trust. We will deal with Williamson's distrust on trust in section 4 where his typology of trust is presented, including his ac-

³ It is in this spirit, that the cartoon on the front page of this thesis has been chosen: Williamson's reductive and calculative understanding of trust is not pervasive – the punchline of the cartoon is thus not meaningless.

count of personal trust. Having established the contrasting tension between calculative and non-calculative trust, it will facilitate our discussion on Williamson's criteria for the limits of calculativeness (section 5) as well as "personal" trust (section 6) in part II. In part III, I will synthesise the previous considerations, defending my main argument against the pervasive calculativeness of trust in section 7: given interaction effects ("spill-over") and the strategic uncertainty occurring in situations involving trust, trust is better analysed from a pragmatic rather than epistemological, risk-like and calculative point of view. Nevertheless, although it might seem that allowing for "personal trust" places unnecessary challenges on Williamson's account of trust, I will argue that his stance enriches the discussion. This consideration motivates section 8, where advantages, deficiencies, and resulting limitations of W93's calculative trust are considered. Section 9 presents the dilemma of pervasiveness summarising the major previous findings. It will outline the conditions, extent and benefits of my position and argument that pervasiveness of calculativeness cannot and should not be maintained. Section 10 concludes. Before going over to section 2, let me briefly elaborate on the motivation of the present thesis.

1.2 Some words about motivation: trust, the economic crisis and delineation

Trust has regained interest in the context of the current economic crisis. In media as well as in academic journals (cf. Sapienza & Zingales 2012), continued reference has been made to the loss of trust as a crucial factor accounting for the outbreak as well as persistence of the crisis. In the quest for pathways to change the course of affairs, general talk about the need to restore trust in in the economy, financial institutions, and polity has been ubiquitous. But what is that Janus-faced thing called "trust", the loss of which has caused almost a collapse of the economy on the one hand, and which is supposed to redeem us of the crisis on the other? Browsing through the trust literature is a limited and disappointing experience in answering this question: most accounts stipulate their own definition of trust (with, at best, some family resemblance between those accounts) leading to a terminologically and conceptually often confusing heterogeneity – ironically, as one of the few points of convergence, almost all theoreticians of trust agree on this latter point. Maybe the focus on the discussion in one academic field could give relief to this circumstance and provide material that can be dealt with in a Master's thesis.

To focus on economics is the sensible choice to the extent that the current crisis is an *economic* one. There, the discussion about trust is mainly based on two empirical approaches: surveys and experiments. General interest in surveys has massively grown after the outbreak of the crisis, producing different kinds of statistical and econometric tests. Experiments on trust, in turn, took off already in the nineties beginning with Berg et al.'s (1995) first account of a trust game. Generally and roughly, the results of both approaches prove the following: survey-trust is correlated with the economic cycle (cf. Stevenson & Wolfers 2011) and experiment-trust, understood as behaviour contradicting the predictions of Nash sub-game equilibrium, exists and persists. Yet, to focus on these approaches does not seem conducive for understanding the nature and concept of trust itself. In the words of Hardin (2006, p. 74), "there is relatively little to learn about trust from these two massive research programs." A further focus is necessary.

The consequent decision to focus on one specific conceptual account and discuss W93 in depth is based on three considerations: first, W93 is one of the earliest, most extensive and widely cited contributions on the theoretical conception of trust in economics. Second, it provides a sufficiently nuanced discussion that allows for a comparison with intuitions, general

observations, as well as conceptions in other academic disciplines. Third, his account of "personal" non-calculative trust harbours and accommodates several aspects of the affective and pragmatic (rather than epistemic) character of trust. This is interesting because economics is regularly charged with ignoring or even disregarding these aspects when dealing with trust. Williamson's account represents thus an ideal platform to provide an exemplar analysis of the economic approach to trust while confronting it with alternative conceptions and approaches.⁴

W93, as I have sketched out previously, provides a discussion of two accounts of trust: "calculative trust" (the craftsman example) and non-calculative "personal trust" (the husband example). Let me make an terminological remark at this point. De Vos & Wielers (2003, p. 79) suggest, and I agree, that Williamson's choice of words is unfortunate. We do thus more justice to our intuitions calling Williamson's "calculative trust" a *calculated risk* and his "personal trust" *trust* tout court. Whereas those two accounts differ in many respects, my focus and critical analysis will fall on Williamson's attempt to bring them under the umbrella of pervasive calculativeness. While I am critical of Williamson's umbrella, this does imply that I am sceptical of the very possibility that trust can be accounted for under one heading. What I will argue for is that within the argument of W93 the pervasiveness of calculativeness does not follow. In any case, we shall see that the relevant question does not concern the universal nature of trust, but rather what account of trust can and should be chosen for which purpose and context. This is what follows from Williamson – or this is the reading of his position with which I agree.

The reader might expect at this point a definition of trust as a benchmark with which W93 can be compared. However, I will have to ask for patience until the section 2.3. The reason for this is that Williamson has a rather minimal and thus counterintuitive account of trust – it is deep in substance but limited in scope. While editing this thesis, I realised that starting straight away with an (unavoidably complex) conceptual discussion about trust's nature would unfairly distort the view and expectation on Williamson's account. If you feel patronised at this point, do not be afraid, your desire for arguments will be served. Trust that the author has pondered much too long over this question, thus having his reasons to present it the way he does.

⁴ Note that W93 presents and discusses trust within a flourishing economy. It has little explanatory force with regard to the "breaking and making" of trust, e.g. in the context of crises. Leaving behind my initial interest in trust within the crisis is the price for a proper conceptual discussion on trust in W93 and thus economics.

MA-thesis: "How much Trust can Economists Cope with?"	Darian Heim
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PART I: THE CONCEPTS OF CALCULATIVENESS AND	TRUST

2. Calculativeness: maximise in an uncertain environment

In the beginning of his paper, Williamson is quite explicit about what he pursues in his project: "The relentless application of calculative economic reasoning is the principal device that I employ to define and delimit the elusive notion of trust" (W93, p. 453). Calculativeness is the defining mark and "general condition" of the economic approach. Economics is thus not defined on the basis of its subject matter (the economy or commerce) because only calculativeness allows for a "progressive extension of economics into the related social sciences" (W93, p. 456). Given that trust is classically a subject of sociology or psychology, the benefits of a calculative economic approach need to be established first – and this is Williamson's endeavour.

However, the predominance of and insistence on calculativeness remains "hardest to swallow" (Craswel 1993, p. 487) for non-economists. But what is this calculativeness precisely? Craswel, in his direct comment to W93⁵, equates calculativeness with rational utility-maximisation arguing that people can be most usefully modelled in those terms.⁶ Most commentators agree that calculativeness represents an approach to conceptualise, analyse, and assess behaviour – it is a specific theoretical way, characteristic of economics, to see the world. It does not have to be coextensive with how individuals perceive what they do. But Williamson does not seem to make a major distinction: calculativeness is as much an assumption about human agency in modelling the world as it can be a real existing individual attitude (cf. section 2.1.1).

Calculativeness is discussed within a framework which is classically attributed to Williamson: transaction cost economics (TCE). Consider an illustrative analogy: friction makes lubricants necessary in a real mechanical machine but it is neglected in theoretical accounts of physics. Similarly do imperfections in the market economy create certain real costs which are neglected in "neoclassical" economic theory. Transaction costs are the costs implied by searching an appropriate trading partner, the time to negotiate the conditions of the exchange, or monitoring the correct execution of a trade – in short, all types of costs we would not have in a world of perfect knowledge, information, and transparency. As agents in neoclassical mainstream economics act – rather unrealistically – independently on the basis of full and perfect information (Weintraub 2002), TCE aims at providing a contrasting account of the real-world economy.

Such economic exchanges take place in an "incomplete contracting set-up" (W93, p. 456n25). Within this framework, where transactions are based on explicit or implicit contracts, two factors are crucial: bounded rationality and opportunism. They are "concessions to 'human nature as we know it' ... [A]ny study of organization purporting to deal with economic realities must come to terms with this behavioral pair." Realisticness matters in Williamson's placing of TCE in context to mainstream neoclassical economics. Williamson's "contractual man" is more *realistic* than the perfectly informed neoclassical "economic man."

⁵ Throughout this thesis, I will refer on a regular basis to Craswell's direct comment on W93 (which was published in the same journal and issue as W93). I will even treat his position, where it seems needed and appropriate, *as if* it was Williamson's because Williamson, in his reply to the comment (which followed Craswell's comment in the same issue), indicates general agreement with Craswell's stance on W93.

⁶ Bromiley & Harris (2006, p. 131) equate W93's "calculative trust" with a "cost-benefit analysis of risk." Whereas the precise mode of maximisation is explained in the following pages, Williamson is not explicit about what precisely self-interest can encompass, i.e. profit, pleasure, collective utility, or social preferences?

⁷ Cf. Williamson (1985, pp. 1 – 2). For a further elaboration on this metaphor, cf. Hardt (2009, pp. 29 – 32).

⁸ Cf. Williamson (1985, pp. xii – xiii). Alternatively: W93 (pp. 458 – 459).

⁹ Cf. Williamson (1985, p. 44): "Many economists treat behavioral assumptions [footnote omitted] as a matter

Yet, Williamson's calculative TCE account is not void of prescriptive aspects, i.e. accounting for what one *should* do in order to be rational rather than how one actually *behaves* in reality. Indeed, in the present section, I shall prepare the ground for my later conclusion (sections 8 and 9) that W93's account of trust is justified and strong to the extent that it describes clear-cut prescriptive implications – it provides a concise, though not necessarily complete, answer to the question of *when one should trust*. But before elaborating on this, let us turn in the following three sub-sections to the two "realistic" aspects in W93, bounded rationality and opportunism, as well as to their implications for the pervasiveness of calculativeness.

2.1 Rationality: how to be bounded and yet farsighted

For Williamson, agents are endowed with bounded rationality – time-constraints, incomplete information, and limited mental capacities do not allow them to take "rational" or optimal decisions. Bounded rationality takes thus into account the realistic conditions under which people take their decisions. But agents are still assumed to be *rational*. For Williamson, rationality implies efficiency – achieving a maximal output-input ratio and the optimal employment of (scarce) means for a determined end. However, he differentiates between different forms and degrees of such rationality (Williamson 1985, pp. 44 – 47). The strongest form implies "maximizing" and it is defended by neoclassical economists – agents are assumed to be hyper-rational and take perfect, constraint-free decisions. Williamson's own bounded account is considered "semi-strong" and criticised by adherents of the strong account "because limits of rationality are mistakenly interpreted in nonrationality or irrationality terms" (Williamson 1985, p. 45).

Williamson's reply to this charge is that actors intend to behave in a perfectly rational manner. The key quote here refers to Herbert Simon, one of the main inspirations for Williamson's TCE account, who said that individuals are "intendedly rational, but only boundedly so" (Simon 1997, p. 88). Agents are limitedly rational rather than boundedly irrational because they aim at behaving optimally even though they cannot anticipate all potential contingencies that may arise from their actions. It is for that reason, next to opportunism (cf. section 2.2), that fully-informed "perfect" contracting is not possible (Vromen 1995, p. 50).

This qualification is important because it makes of Williamson's account of bounded rationality "a broader concept" rather than one of mere "limited cognitive competence" (W93, p. 458n31). Intentionally rational agents attempt "effectively to cope" and are thus not irrational or merely *satisficing* their self-interest. The latter concept is originally from Simon (1997). Satisficing assumes that agents pursue only an acceptable and sufficient satisfaction of their self-interest due to missing cognitive capacities to discern optimal and maximal outcomes – agents are *reasonable* rather than rational. However, for Williamson – due to reasons that shall become clearer in section 8.3 – "the analytical toolbox out of which satisficing works is, as compared with maximizing apparatus, incomplete and very cumbersome" (Williamson 1993b, p.123). Williamson's account of bounded rationality departs from the observation that agents are cognitively competent only to a limited degree. What matters for our purpose is that he takes this

of convenience. ... [But] an understanding of the actions of men requires more self-conscious attention to the study of how the minds of men work ... [T]he study of mind and of social process is needed to get at the roots." Or, ibid. (p. 272): "capitalist [i.e. economic] man is a nonhumanist. That is not a flattering or fully accurate description of human nature." For an illuminating rhetoric analysis of Williamson "contractual man" in relation to the "mighty" "Economic Man", cf. Pessali (2006, pp. 54 – 57).

fact beyond its empirical basis and presents a strong intentional account of rationality – one that underlies his argument of pervasive calculativeness as will become clear throughout the following sections. However, if Williamson's account of bounded rationality does not give full credit to how agents realistically behave rationally, of what kind and on to what level does Williamson's understanding of rationality apply then?

2.1.1 The locus of such rationality: proximate vs. ultimate explanation

For Williamson, the concept of satisficing "appeals to psychology and works out of an aspiration level mechanics" (W93, p. 458n31). However, as such, it "has not found wide application within economics" (ibid.). And yet, this does not imply at all that Williamson dismisses psychological stances, motivations, or generally beliefs – actually, they are central to his account of non-calculative "personal" trust as we will see in sections 3 and 4.1: how wife and husband perceive and experience their relationship will determine its nature and "efficiency". According to Craswell (1993, p. 494), people involved in such relationships justify their trusting as "the decent thing to do rather than because it was good for business." Trust represents thus a description of the "internal mental states of those actors". Such individuals are thus motivated by moral considerations, norms, rules or simple habit. However, Williamson is not interested in explaining internal states "for their own sake" – the investigation of which is a worthwhile task on its own right, but one reserved for psychologists (ibid., pp. 494 – 495).

With regard to calculativeness, internal beliefs are not central and the focus falls on the concrete consequences. The particular psychological attitude of a craftsman relying on a subcontractor does not matter – the former can love or hate, trust or distrust the latter – as long as necessary contractual precautions are taken, avoidable risks hedged and the expected benefit maximised. Williamson is thus interested in accounting for "human behaviour" showing that individuals ultimately act "as if they were rational calculators." Even if agents are motivated by non-calculative mental states, what matters is what their behaviour, in the end, amounts to and how this outcome is analysed. Williamson's decision to do so in calculative terms is a decision out of pragmatic considerations: "[i]ndividuals may believe that they and others are acting for noncalculative reasons, but if their actions always turn out to be those that a calculative person would take, then the calculative theory provides a more parsimonious account of their behavior, and the individuals' internal mental states can be disregarded" (ibid., p. 494; cf. section 8.3).

In evolutionary biology, a common manner to understand and frame such a distinction is to call the first "proximate" and the latter "ultimate" explanation.¹¹ With regard to our discussion, this distinction implies that how people currently experience and identify with their relationship

¹⁰ Craswell (1993, p. 494). This stands in the tradition of Friedman's (1953) seminal instrumentalist manifesto according to which "the more significant the theory, the more unrealistic the assumptions. ... Consider the density of leaves around a tree. I suggest the hypothesis that the leaves are positioned as if each leaf deliberately sought to maximize the amount of sunlight it receives. ...[However,] leaves do not 'deliberate' or consciously 'seek,' ... the hypothesis does not assert that leaves do these things but only that their density is the same *as if* they did. Despite the apparent falsity of the 'assumptions' of the hypothesis, it has great plausibility because of the conformity of its implications with observation" (Friedman 1953, pp. 14, 19 – 20).

¹¹ This differentiation has been introduced by evolutionary biologist Ernst Mayr. We shall analyse W93 along the criteria Marchionni & Vromen (2009) suggest with regard to Mayr's account: first, W93 provides an ultimate explanation appealing to ultimate causes (i.e. calculativeness); second, W93 accounts for behaviour and not psychological mechanisms; third, the explanans is the evolved behaviour; and fourth, W93 aims at a "general" rather than "detailed and deep" mode of explanation (Marchionni & Vromen 2009, pp. 112 – 113).

is a proximate explanation. But what the same relationship boils down to from an outside perspective and in the long-term is the ultimate explanation.¹² This distinction is crucial because it will allow us to account for Williamson's argument for pervasive calculativeness. Calculativeness cannot be pervasive on an internal "proximate" level if there are certain "personal" relationships which "ought not to be thought of in calculative terms" (ibid., p. 498). But, "personal" relationships are kept functional and thus efficient by not being *proximately* perceived in comparative calculative terms. Hence, they are *ultimately* calculative.

Now, bounded rationality (just as opportunism) is obviously an assumption *about* internal psychological states of agents. However, Williamson does not aim at realisticness with regard to this assumption for its own sake (although he departs from its more realistic nature compared to neoclassical hyper-rationality). His criteria for selecting assumptions and thus a theory are analytical tractability and accurate predictions of behaviour (cf. section 4.2.3) – both of which focus on the resulting ultimate outcome while disregarding the proximate internal level. Moreover, to focus on ultimate effects allows us to analyse how proximate level attitudes are influenced or develop over time. In is in this vein that evolutionary theory accounts best how ultimate and proximate level are interconnected in W93's calculativeness.

2.1.2 Evolutionary bridging: why rational behaviour ultimately survives

In fact, Williamson's calculativeness can be read as an attempt to bridge the two aspirations of providing a realistic account of how people think and, at the same time, defend that behaviour based on such beliefs is still rational. To reformulate this: how should we bring together the descriptive account of actual beliefs, our *bounded* rationality, with the rather prescriptive idea of how we should behave ideally, our striving for efficiency or bounded *rationality*? According to Vromen (1995), evolutionary considerations bridge this gap. Competition and natural selection between existing forms of decision making (descriptive part) will crowd out less efficient forms of organisation or behaviour (prescriptive part). Bounded rationality, then, implies (according to Williamson who cites Simon) a "weak-form rather than strong-form selection, the distinction being that 'in a relative sense, *fitter* survive, but there is no reason to suppose that they are *fittest* in any absolute sense'" (Williamson 1985, p. 23n14). The prescriptivity and thus pervasiveness of Williamson's rationality resides in its selection force.

If calculativeness describes and prescribes efficient behaviour and if efficiency – the optimal employment of scarce resources for ultimate survival – is a pervasive evolutionary selection force, then calculativeness is pervasive too. Given that selection applies on an ultimate level we might understand Williamson's relative negligence or disinterest of proximate mental attitudes. I deliberately say "relative" because he does concede a major role to the proximate level in his account of personal trust (cf. section 4.1). However, he does so only to the extent that such relationships are ultimately calculative *because* they persist and survive over time while remaining the way they are, i.e. non-calculative. But, calculativeness notwithstanding, is personal trust – beyond the (descriptive) observation that this is the way we behave – prescriptively or evolutionary rational too? Williamson is not explicit about this point whereas Craswell remains scep-

¹² Craswell (1993) speaks of internal or external analysis along analogous lines (cf. section 7.2).

¹³ If only evolutionary "fit" and efficient behaviour survives and persists over time, i.e. can be retraced and *described* as efficient in a future moment, one might doubt whether my term "prescriptive" is adequate. However, I shall continue to use this contrasting descriptive-prescriptive juxtaposition because in the case of trust (and cooperation in general) the precise evolutionary forces and effects are not so straightforward to detect.

tical about the rationality of attitudes that arise from a proximate level and influence the ultimate level (cf. section 5.3). Indeed, the special status of "personal" trust is due to its inversion of the direction of evolutionary force. Whereas, normally, the ultimate level selection mechanism (survival for resources) impacts on the proximate level attitude the proximate non-calculative level, in the case of trust, determines the ultimate calculativeness of the outcome: the beliefs of our married couple about their relationship (is it calculative or not?) may determine whether their marriage is "efficient" and whether it will ultimately "survive" or not (cf. section 5.2).

Now, how to accommodate the fact that agents are still assumed to be *boundedly* rational? Williamson's calculative rationality is bounded in that not all outcomes are perfectly rational and efficient, but only those which are "actually tried" (Vromen 1995, p. 60). Inefficient outcomes are thus not necessarily eradicated over time. They cease to exist to the extent that at one point an actor finds a *more* efficient manner of employing his or her means competitively and thereby crowds out *less* efficient forms. Agents look for more efficient outcomes because they are intentionally and constantly *trying* to find and apply efficient and rational solutions (ibid., pp. 58 – 60). Given this intentional account of rationality, we might ask what the concrete limit to such an efficiency-seeking predisposition is so that we can call it still "bounded" in a meaningful manner. Indeed, as Vromen has pointed out, this limit is rather small. Williamson requires a "thick" notion of rationality in order to assure that his agents have the sufficient intentionality to pursue a calculative, efficient, and maximising behaviour. For him, the concept that accommodates such a necessity is farsightedness.

Farsightedness contrasts with the assumption of agents being "myopic", an assumption which is wide-spread in "models of economic organization" (W93, p. 460). Such myopic or short-sighted agents act in order to fulfil their immediate self-interest rather than according to a potential calculation of their long-term utility. In this context, myopic agents will break contracts once that they do not see their immediate self-interest satisfied anymore – farsighted actors, in contrast, look ahead of the short-term. They are aware of the potential reputation and credibility losses that their default on a contract implies such that their mid- or long-term interest can be hampered. Such agents are able and willing to take provisions for a potential dependency resulting from a mismatch between a too high demand and too few suppliers: "farsighted parties purposefully create bilateral dependency and support it with contractual safeguards" (W93, p. 461). Farsighted agents are thus able to foresee potential inefficient consequences in the long-term and take precautionary measures against it (cf. section 4.2.2).

Williamson's agents follow "a farsighted approach to contract", where "credible commitments, or the lack thereof, play a key role" (W93, p. 485). Whereas neoclassical agents are perfectly informed – making concepts of credibility or reputation superfluous – information is incompletely processed in an incomplete contracting set-up: a farsighted view looks at the contractual relation "broadly" implying "an examination of the system's context within which contracts are embedded" (ibid.; cf. section 4.2). A context-dependent assessment of reputation or credibility can obtain. When A makes a calculative assessment of whether to "trust" B this is related to A's experience and assessment of B's credibility – in short, factors which determine B's factual trustworthiness. B, in turn, will have an interest to maintain a credible reputation and even actively "signal" such qualities as a consequence of her or his farsighted calculativeness.

¹⁴ Cf. Vromen (1995, p. 59): "Williamson's boundedly rational individuals do not seem so limited after all!" In Vromen's 245-pages thick book, this is one of only eight exclamation marks that I have found.

Farsighted parties are "wise" (cf. W93, p. 459) in that they are capable of calculativeness in the long-term. Moreover, it allows such agents even to discern and identify the "(myopic) excesses of calculativeness" (W93, p. 454). Looking ahead, they realise that in certain occasions calculativeness might lead to a less efficient outcome compared to the identical context in which no calculative attitude was taken. The question of how and whether the limits of calculativeness can be discerned by means of a farsightedness will be central in part II of this thesis. Let us turn now to Williamson's second central assumption of TCE: opportunism.

2.2 Opportunism: the guileful pursuit of self-interest

Williamson's agents are assumed to be opportunistic and thus guided by a strong self-interest in deciding whether to start or go on with a contract or not (W93, pp. 458 – 459). Compared to the "economic man" such agents do not behave in a transparent and honest way. They are "self-interest seeking with guile" (Williamson 1985, p. 30). This behavioural assumption is strong(er) because it allows agents to pursue a wider set of strategies for achieving their self-interest – rather than being perfectly informed and transparent only (as assumed in neoclassical theory) individuals can act intriguingly and deceitfully too. The combination of both bounded rationality and opportunism determines thus Williamson's more realistic vision of man: "[a]s compared with orthodoxy, the human agents of transaction cost economics are both less and more calculative. They are less calculative in the capacity to receive, store, retrieve, and process information. They are more calculative in that they are given to opportunism." ¹⁵

This view on human nature represents a precondition for Williamson's conception of contracts: if humans are opportunistic, then contracts cannot be conceived as "promises" (W93, p. 458). As information (or its processing) is incomplete, systemic hazards can arise through opportunism: contracting parties can be motivated by bad and deceitful intentions. Any contract is thus "non-ideal" and subject to hazards and ongoing information updates due to the unreliability of the contractants. The systematic hazards created by opportunistic behaviour and bounded rationality account for the temptation of deviating from a contractual agreement. This explains the ultimate existence of transaction costs like "information and monitoring costs involved in the execution and enforcement of contracts" (Vromen 1995, p. 48).

But how realistic is such an assumption? Evidently, there are (and will probably always be) economic agents which "lie, cheat, and steal ... confirm to the letter but violate the spirit of an agreement ... deliberately induce breach of contract and ... engage in other forms of strategic behaviour" (Williamson 1993c, p. 101). However, it is as evident that under such an "unapologetic" (ibid.) assumption there is no real space for trust – and indeed, this is Williamson's position with regard to economic organisation, as we shall see in section 4. Nevertheless, one of the reason to choose such an "unflattering" assumption is "realpolitiks" (ibid., p. 98): we do better in acknowledging opportunistic behaviour and taking provisions against it rather than to fall into a "naive" and "utopian" (NB. socialistic) world-view – we need to recognise that "the core source of failure is the human condition rather than technology" (ibid., pp. 101 – 102). In any case there is little to lose in being safe rather than sorry: discretion is the better part of valour.

¹⁵ Williamson (1985, p. 391). Concerning the need to assume opportunism with guile and not mere self-interest, cf. Williamson (1995, p. 29, my emphasis): "If a serene and frank reference to opportunism alerts us to avoidable dangers which the more benign reference to frailties of motive and reason would not, then there are real hazards in adopting the more benevolent construction."

Does the existence of such systematic hazards imply that agents will permanently breach contracts if their self-interest is not served anymore? Although this might be a possible reading, such a strategy needs to be traded off against agents' farsightedness. As they will also aim at the fulfilment of their calculative self-interest in the long-term, they will have an interest in establishing and receiving "credible commitments". This corresponds to a "more deeply calculative response" involving the achievement of "superior deals" which could not be reached solely with myopic opportunism in place (W93, p. 459). However, W93's agents will breach a contract if it is not efficient, even from a farsighted perspective.

2.3 The pervasiveness of calculativeness

Bounded yet farsighted rationality and opportunistic guileful self-interest are thus the assumptions that constitute Williamson's calculative analysis of economic organisation. Now, when Williamson argues for the pervasiveness of such calculativeness it is important to be clear that this is no claim about existing mental states of observed individuals. In fact, Williamson is deliberately neglecting psychological aspects and beliefs – except with regard to "personal trust" (cf. section 4.1 and 6) – because they are overridden by ultimate selection mechanisms anyway. In the words of Satz & Ferejohn (1994), Williamson is a "moderate externalist" who takes "a perspective external to the agents whose behavior is being explained." Any such theory has "only a remote connection to psychology. While the theory connects behavior to psychological entities, it is not thereby committed to their causal force. In particular, it does not explain behavior in terms of these mental entities" (Satz & Ferejohn 1994, pp. 76 – 77).

Calculativeness is thus not pervasive on a psychological level. But how and where is calculation then pervasive – or, what does pervasiveness mean for Williamson? The Oxford Dictionary defines "pervasive" as "spreading widely throughout an area or a group of people." Now, it is intuitive that calculativeness is pervasive and ubiquitous in commercial relations: the craftsman needs to assume that the subcontractor might misplan the schedule, procrastinate the job or even try to cheat – consequently the craftsman and entrepreneur needs to take provisions against such behaviour of economic partners. However, how intuitive is this in a well-functioning marriage, i.e. does the husband need to take (contractual) precautions against his partner cheating on him? Obviously, it goes against common sense to understand a (ideally) livelong promise by loving parties as a contract between calculative and opportunistic agents.

In accounting for the ultimate calculativeness of even such relationships, we may refer to Pettit (1995), who implies – in his attempt to conciliate the calculative economic world-view with common sense – that calculativeness in such occasions is "virtual" rather than actual. Although agents do not perceive their actions as *actually* calculative, calculativeness latently and *virtually* underlies their actions. Hence, personal relationships are virtually and pervasively calculative: "in such non-market contexts [i.e. ordinary family or friendly interaction, political decision, group behaviour] self-regard may still have an important presence: it may be virtually if not actually there" (Pettit 1995, pp. 319). But, how does this virtual existence of calculativeness

¹⁶ http://oxforddictionaries.com/definition/english/pervasive, 18/07/2013.

¹⁷ A commentator pointed out the growing number of marriage contracts, "prenups", asking whether they do not undermine the supposed non-calculativeness of "personal" trust relations. Such cases, however, straightforwardly confirm the pervasiveness of calculativeness. Williamson's challenge and burden of proof is to show the (indirect or hidden) calculativeness of decidedly and intentionally non-calculative relations.

manifest itself? For Pettit, agents may act and "proceed under more or less automatic, cultural [i.e. non-calculative and proximate] pilot in most cases but at any point where a decision is liable to cost them dearly in self-regarding terms, the alarm bells ring and prompt them ... to do the relatively more self-regarding thing" (ibid., pp. 319 - 320). The cultural autopilot guides their actions "in the currency of received values" (ibid., p 322) until an individual and situational threshold is trespassed beyond which the infliction of self-interest is not tolerated anymore – virtual calculativeness is a "standby cause" (ibid., p. 326) becoming actual once it is triggered.¹⁸

Now, although these "alarm-bells" ring on a proximate internal level, they manifest in an ultimate behaviour which can analysed *as if* it were calculative. Up to a certain threshold the calculative fruits of mutual non-calculative behaviour are picked (or slight violations of "received values" condoned). But beyond this tolerance level – once the price of leading the relationship in such a mode gets too high – a calculative attitude including safeguards kicks in. It is in this spirit that personal relations are not unconditional for Williamson: the trust of the husband or the wife may break if either party "unambiguously violates the trust" or when "a succession of minor violations ... jeopardize[s] the condition of trust" (W93, p. 483). And this is where "calculativeness creeps back in" (ibid.). Once the "alarm bells ring" the relation will be perceived and lived as calculative, i.e. an "experience rating with continuous updating of the trustworthiness" (ibid.) of the blameable party will take place. However, in order to avoid such a degradation of the relationship, it will be put on "all-or-none terms" requiring the guilty party to "reform' rather than merely to 'do better'" (ibid.). The qualitative nature, the "discrete structure" of such personal relationships is different and prescribes non-calculativeness – to disregard this, to apply calculativeness excessively and unlimitedly leads to adverse effects (cf. part II).

To summarise: Williamson's understanding of calculativeness is based on the two "behavioural" assumptions of bounded yet farsighted rationality and prudential opportunism. To claim for its pervasiveness is straightforward and intuitive in neat economic contexts, where there is a high evolutionary ("prescriptive") selection pressure and ultimate effects prevail. However, even in personal contexts, where proximate psychological stances matter, calculativeness kicks in when certain thresholds of acceptable self-sacrifice are reached. This is one form of how calculativeness pervades even personal trust. The other form, however, is more central in Williamson's account: calculativeness would have "dysfunctional consequences" in personal contexts leading to inefficient spill-over effects. This aspect will be taken up in section 5 and 7.

But, so far, we have only considered Williamson's general account of calculativeness and its pervasiveness. In order to apply it to trust more specifically, we shall, in the following two sections, elaborate first on the general notion of trust and afterwards go over to Williamson's account of "calculative trust". The next section contextualises thus W93's account on trust with regard to the debate in moral theory. The purpose is to provide a broader discussion of those issues in W93's account that might remain opaque on a separate and independent reading of W93 alone. Indeed, several aspects in W93's account on trust become clearer and comprehensible once we consider what W93 argues (implicitly) against and for what reasons.

¹⁸ Cf. Nooteboom (2003, p. 81). Obviously, such a view involves satisficing rather than maximising with regard to when to switch between virtual and actual considerations. But this point will be dealt with in section 8.1.

3. The "elusive" notion of trust – where calculation stops and morality enters

We can define trust as a potentially unconscious attitude of positive expectation by the trusting person (henceforth *A*) towards the trusted person (henceforth *B*) (not) to act in a certain way. This expectation involves that A can take the risk of trusting B and accepts to be vulnerable in doing so. Accepting this vulnerability plays on two levels: first, that B is competent in bringing about the action C, and second, that B is guided by the right kind of motives in doing C, in particular not to abuse A's trust. According to McLeod (2011, ch. 1), these criteria are "relatively uncontroversial" except for the last one about B's motives. For instance, we seem to trust total strangers occasionally, e.g. to indicate us the right way, although we cannot read their motives. A's reliance on B's right motivation and beliefs is not necessary for A to trust B. In deciding whether to trust a stranger, A can trade off the risk with the potential loss and gain just as with any other B – such "risk-assessment" views as Williamson's have the inside track because they do not put forward any restricting conditions on B's internal state. The provious section of the risk with the potential state.

In the present section, we shall elaborate on common internal proximate considerations of Williamson's account of trust to the extent that they contrast with his account of calculativeness. We will deal with two aspects which inform and determine the limits of calculativeness as well as its pervasiveness. The first question is whether genuine trust allows for control and monitoring: can a husband simultaneously trust his wife to be faithful *and* control whether she is behaving in such a manner? The second aspect concerns the question to what extent trusting behaviour can be completely rational at all – is trust not better considered to be an emotion?

3.1.1 Trust and control: can trust and monitoring be reconciled?

Trust can be interpreted as A's optimistic assessment of the overall trustworthiness of B which is B's property of reciprocating or not abusing A's trust (cf. Noorderhaven 1996). What underlies this optimism is A's relative dependence and inferiority in power with regard to B – the action B is entrusted (not) to do has a direct impact on the welfare of A. This observation has lead certain theorists, notably in economics and affiliated disciplines (among others, Williamson), to the following: they equate the degree of dependence or vulnerability A takes with a degree in a risk-assessment à la Coleman (1990). There, the probability of being betrayed needs to be lower than the ratio between the potential loss in utility (A's vulnerability of being exploited – C is not brought about by B plus additional damage) and the utility gain (trust is well-placed – C is brought about by B) factored by the probability of the trust being well-placed.

However, the fact that trust implies A's vulnerability and thus inferiority in power towards B has attracted more attention by other theorists, notably philosophers and sociologists. B has the

¹⁹ This corresponds to a three part relation: A trust B with regard to C (cf. Baier 1986, pp. 236ff.; Hardin 2006, pp. 18ff.). Yet, often we rely on a "basic" trust that has no proper C (McLeod 2011, n3). Nooteboom (2003, p. 93) suggests a fourth variable accounting for contextual conditions. I will neglect such accounts as well as unspecified forms of trust which are not inter-personal/group, i.e. without a proper B or C (e.g. system trust).

²⁰ A further uncontroversial issue is that trust and distrust are "contraries but not contradictories; between them lies a neutral space" (Jones 1996, p. 16; cf. McLeod 2011, n2). Loss or absence of trust, therefore, does not imply distrust and vice-versa.

²¹ Cf. McLeod (2011, ch. 1). Such an account is more parsimonious in theory construction because no additional assumptions about B's beliefs are made (cf. sections 2.3 and 8.3). Cf. Khalil (2003, p. xx): "[W93] economizes on theory construction and, hence, following the Ockham's razor dictum, is a theoretical triumph."

"power to betray" (McLeod 2011, ch. 1) whereas A has no bargaining position within of the trusting relationship. B has, furthermore, "discretionary power" (Baier 1986, p. 237) over how to interpret and bring about the (implicitly) desired action C. We, then, trust the trustees "to use their discretionary powers competently and nonmaliciously [i.e. without disguised and ill-willed intentions]" (ibid., p. 240).²² Williamson, however, calls the concept of power as "disappointing" as trust;²³ and if he mentions power disparities then they do not represent a major problem: "[t]ransaction cost economics employs an efficiency perspective and treats [power] dependency as a (broadly) foreseeable [and hence avoidable] condition" (W93, p. 461).

For Williamson, inefficient power imbalances come "as an unwanted surprise" only to myopic agents who are "unable to project and make provision" for changes in the supply and demand conditions (W93, p. 460). Ironically, Baier calls accounts of rationality such as Williamson's farsighted version "myopic" because they do not take certain phenomena like trust seriously enough. Here is a quote of hers that applies to the core of W93: "trust between articulate adults, ... having some control over their degree of vulnerability ... typifies a myopia which, once noticed, explains the 'regrettably sparse' attempts to understand trust as a phenomenon of moral importance. [footnote omitted] For the more we ignore dependency relations between those grossly unequal in power and ignore what cannot be spelled out in an explicit acknowledgement, the more, readily will we assume that everything that needs to be understood about trust and trustworthiness can be grasped by looking at the morality of contract" (Baier 1986, pp. 240 – 241). Williamson's morality of contract is simple: as a default, agents are better not to be trusted due to their opportunism. However, he seems to exempt personal relationships from this rule, as we shall see in section 4.1. Moreover, farsightedness seems to be Williamson's all-purpose remedy for curing afflictions of (bounded) rationality.

The dependence involved in trust is not of absolute nature: alternative-free "trust" would boil down to "hope". A must be able to decide not to trust B at all in order to be able to speak of a genuine situation of trust. The dependence might be even more nuanced: A might trust B and still control B. The more A controls B the less A trusts B – the difference between controlling or monitoring and trusting is gradual (cf. Zak & Knack 2001). Yet, according to McLeod (2011, ch. 1) the control-trust juxtaposition is better seen as a difference of type. Once A controls B (be it only with regard to a certain aspect), A stops trusting B (with regard to that aspect). A is not trusting B if A's monitoring of B does not allow the latter "to prove [her or his] own trustworthiness" (McLeod 2011, ch. 1). W93's calculated risk account endorses a gradual account, but his account on trust assumes the categorical account: if personal relations are (consciously) monitored, there is no space for genuine trust (W93, pp. 483 – 484).

Adherents of the latter account normally coincide with what McLeod (2011, ch. 1) categorises as the defenders of the "good-will view on trust". According to this view, A's vulnerability involved in situations of trust needs to be met by the good-will of B in order for B to be genuinely trustworthy. A's expectation of the good-will of B allows us to differentiate "trust" from mere "reliance": trust can be betrayed, but reliance only disappointed.²⁴ W93 takes this element

²² In this spirit, Baier (1986, p. 242) calls trust involving extreme power inferiority (e.g. infant trust in parents) "theologically contaminated" and the "virtue of the weak."

²³ W93 (p. 485). For a more detailed account on this, cf. Williamson (1995).

²⁴ This is originally from Baier (1986, p. 235). Cf. McLeod (2011) and Lahno (2001).

up presuming A's forgiving predilections or a predisposition to "ascribe good intentions" to B (W93, pp. 483 - 484). In Williamson's account of trust, internal beliefs and motives matter.

This allows us to distinguish genuine cases of good-willed trustworthiness from those where it only appears to be the case due to, say, socialisation: "While social constraints can shore up trustworthiness, they cannot account for trustworthiness altogether. For, if they could, then the following sort of person would be trustworthy: a sexist employer who treats female employees well only because he believes that he would face legal sanctions if he did not (Potter 2002, [p.] 5). Many would argue that while this person's behavior is predictable or reliable, it is not trustworthy in any genuine sense" (McLeod 2011, ch. 1). In this account, the analysis of trust and trustworthiness focuses on the internal state and attitude of A or B rather than the external observable behaviour. Note that Williamson does the reverse in his calculated risk analysis: evidence has to be moulded into a *reliable* risk assessment – this is independent of trust.

Moreover, Williamson's assumption of *guileful* opportunism leaves no genuine room for trust and hence good-will or differences in internal states at all – it creates a static and prudential account. Actually, W93 deals with phenomena involving trust from a prescriptive standpoint addressing the rationality of trust, i.e. when and on what grounds ought one to trust.²⁵ "To trust" B to do C in such an account means that A "rationally" verifies and ensures the truth of B really doing C. Such a "truth-directed" and "epistemic" account of rationality is "internalist" if an individual assesses truth by means of autonomous rational operations. An internalist view is matched with trust, if A makes "a rough estimate of the truth of [the] claim ... that [B] will be trustworthy under certain conditions ... and then [A] correct[s] [his] estimate, or 'update,' as [A] obtains new evidence on [B]" (Hardin 2002, p. 113). This is an "epistemic" Bayesian account on trust as risk-taking in the spirit of Williamson's "calculative trust" (cf.Williamson 1993b, p. 147) – an account of how a wide majority of purported trust situations *should* be assessed by the individuals involved.

Such a "truth-directed" account, however, stands in contrast to a "strategic", "end-directed" and "externalist" account of rationality. Such a view is assumed in McLeod or Baier's good-will based account and and it also seems to underlie Williamson's account of "personal" trust. The strategic attainment of a certain desirable end is central in such a decision making account. It can be independent of the degree of epistemic justifiability of a decision: "it is rational to trust emergency room physicians, for example, not because one knows for certain that they are trustworthy, but because by trusting them, one can remain calm in a situation over which one has little control" (McLeod 2011, ch. 2). The justification is externalist if the reasons for A's trust lie outside of A's individual's sphere of influence – they are politically, socially or contextually determined (cf. McLeod 2011, Jones 1996), e.g. by norms, rules, habit, routine. The question about the rationality of such trust and its ultimate calculativeness will be addressed in section 7.

3.1.2 Trust as an emotion where there is no place for rationality

Consider the following criticism of truth-directed rationality à la W93. According to McLeod (2011, ch. 2), such "rational trust will always be partial rather than complete, because the rational trustor is open to evidence that contradicts his or her trust". No final certainty can thus be found in assessing whether A's trust is justified, well placed and thus rational. Ongoing

²⁵ The discussion in this and the following paragraph is based on McLeod (2011, ch. 2).

"up-dating" and skeptical inquiry of the rationality of the trusting relationship underlies W93's calculativeness. But it might damage the relationship itself and also be unfeasible in view of the complexity of social reality (cf. Baier 1986, Luhman 1979). Even if one tried to follow such an approach, its justification could become subtle or even arbitrary because it focusses on, e.g. "reasons that have to do with body language, with systematic yet veiled forms of oppression, or with a complicated history of trusting others about which one could not easily generalize. Such factors may influence the trustor without him or her knowing it." The optimism that underlies trust could make it prone to a "selective" focus on and interpretation of facts. In view of this, trust is maybe better considered as an "affective" rather than rational attitude (Jones 1996).

Williamson grants trust a status of a "passion" (W93, p. 482). In this case, "wishing or wanting is not enough" for trust to occur, it "cannot be willed but can be cultivated" (McLeod 2011, ch.4). This special status compared to other volitional attitudes accounts for the asymmetry between loosing and (re-)building trust.²⁷ Trust is not a motivational but epistemic belief, according to Baier (1986, p. 244): "'[t]rust me!' is for most of us an invitation which we cannot accept at will – either we do already trust the one who says it, in which case it serves at best as reassurance, [footnote omitted] or it is properly responded to with, 'Why should and how can I, until I have cause to?" We need reasons rather than willingness to believe in the trustworthiness of B – and the selection of these reasons might be guided by both evidential "truth-directed" or pragmatic "end-directed" considerations. The point is that in the absence of sufficient evidence – i.e. when facing strategic uncertainty – one *should* recur to the next best, potentially end-directed, strategy. This prescriptive point of mine will be elaborated in section 7.2.

On the descriptive side, some argue that trust is better conceived as an emotion (Jones 1996, Lahno 2001, Earle 2009). Emotions narrow down our "fields of evidence" to those aspects that support our emotion.²⁸ And the same counts for trust as it "tends to give us [a] blinkered vision: it makes us resistant to evidence that may contradict our optimism about [B]" (McLeod 2011, ch. 2). Earle (2009, pp. 786ff.) differentiates between emotion-based "resilient" and "nonspecific" trust based on "shared values" in contrast to "reason-based", "fragile", and "specific" confidence based on "past performance, or institutions/procedures designed to constrain future performance." As a consequence, "[t]rust is social and relational; confidence is instrumental and calculative." Evidently, Williamson's calculated risk corresponds to Earle's confidence. However, if trust (and not confidence) takes an important role in real life – as Earle argues – then W93 seems to miss the target if Williamson aims at providing a realistic theory.

In chapter 4, McLeod (2011) suggests further that, on the basis of the above considerations, we might "purposefully try to focus our attention on what makes other people trustworthy, and in doing so cultivate trust in them." We would achieve a "therapeutic" account of trust and improve the overall situation by "reaping" the benefits of justified trust. Behaving *as if* we trusted

²⁶ McLeod (2011, ch. 2). A defendant of the "truth-directed" view on trust could argue that A is not calculating the "right" evidence. Although this might be a viable argumentation, it is of little practical help in view of the uncertainty involved and imposes an unrealistically prescriptive account of rationality (cf. section 7.1).

²⁷ I.e. "[t]rust is much easier to maintain than it is to get started and is never hard to destroy" (Baier 1986, p. 242), "destroying trust is quick and dirty, creating trust is a slow and painful process" (McLeod 2011, ch. 4).

²⁸ Cf. Jones (1996, p. 16): "Trust gives rise to beliefs that are highly resistant to evidence. While affective attitudes can't be willfully adopted in the teeth of evidence, once adopted they serve as a filter for how future evidence will be interpreted." This is why (regularly) betrayed or even traumatised individuals do not appeal to rational considerations in deciding whether to trust another party (cf. McLeod 2011, ch. 4).

or were trustworthy forms a potential way of initiating a policy of regaining trust. Evidently, such practical advise stands in tension to, on the one hand, the fact that motives and beliefs matter for genuine trust and, on the other, McLeod's prior statement that trust cannot be "willed". Consider for now that W93 applies an *as if* strategy on its own where all occurrences of trust should be dealt with and assessed *as if* they were calculative. Both, Williamson's and McLeod's "as if" will be elaborated on, compared, and weighed in section 7.2.

Note that until now, our discussion has focussed only on the nature and functioning of trust itself. However, trust in itself is indifferent with regard to the end of its use. "There are immoral as well as moral trust relationships, and trust-busting can be a morally proper goal" (Baier 1986, p. 232). Networks of exploitation, regimes of oppression, criminal or terrorist organisations – all of them thrive in a climate of loyalty, which is a form of unconditional trust. Her criterion, for differentiating between morally decent and objectionable uses of trust, is based on an externalist "moral test for trust". According to this test "knowledge of what the other party is relying on for the continuance of the trust relationship would ... itself destabilize the relation" (ibid., p. 255). If B gets to know that he or she is trusted by A to be ignorant or anxious about A's potential revenge, or if A comes to realise that B relies on A's blindness, forgivingness for unreliability, or gullibility – then the trust relationship will probably not continue. Trust is thus morally not corrupt and trustworthiness not suspect if "mutual reliance can be accompanied by mutual knowledge of the conditions for that reliance" (ibid., p. 259). This is important because Williamson's account of "personal" and yet ultimately calculative trust would not pass the test, as I will argue in section 7.1, according to the own standards he sets to define trust.

Yet, at the end of her essay, Baier makes a concession which is central to any theoretical approach to trust: "[t]rust is a fragile plant which may not endure inspection of its roots, even when they were, before the inspection, quite healthy. ... It may then be the better part of wisdom, even when we have an acceptable test for trust, not to use it except where some distrust already exists, better to take nonsuspect trust on trust" (ibid., p. 260). This concession will provide the basis for my argument against the pervasiveness of calculativeness in part III. If Williamson's prudential "calculative test" of pervasiveness serves as a benchmark of rationality, this will lead to the destruction of some instances of efficient trust relations. If the application of a certain approach causes a transformation and dysfunctional backlash on the very phenomena of trust one assesses, then one better abstains from applying the theory in the first place. This implies that we accept to stay agnostic about the epistemic nature of "trust" – to *trust* trust on pragmatic grounds is the better choice (cf. section 7.2).²⁹

²⁹ Cf. section 7.2 and Gambetta (1988, p. 228): "We can learn that, tentatively and conditionally, we can trust trust and distrust distrust, it can be rewarding to behave *as if* we trusted even in unpromising situations."

4. "Calculative trust" - do not risk to rely on trust

In Williamson's account of phenomena of trust (i.e. circumstances we describe commonly as involving trust), in his typology of trust, one type is predominant: "calculative trust". In a nutshell, calculated risk (i.e. "calculative trust") is summarised best by a short quote attributed to either – you may choose your source – Ronald Reagan or Vladimir Lenin: "Trust, but verify." To decide whether to engage in a relationship involving an economic exchange requires to have sufficient evidence for a "rational" decision – if there is none, one needs to take the necessary precautions against a defaulting exchange partner. The expected gain of trusting another party needs to be positive in order to calculatively and thus rationally engage in the exchange (W93, p. 463). To trust is ultimately irrelevant to the rationality of a relationship, i.e. whether one trusts or not is independent of the success of the exchange in question (cf. section 2.1.1).

The second and third type of trust Williamson elaborates on are "institutional" and "personal" trust. They differ in their degree to which they can or have to be determined by calculative reasoning. Whereas we will make abstraction of the second type, Williamson's account of "personal" trust, or trust proper, will be substantiated in the following sub-section 4.1. The second sub-section, then, will advance Williamson's arguments against trust – or a minimal account thereof – and in favour of a calculative approach even with regard to phenomena of trust. As a benchmark for rationality Williamson's account of calculativeness is restrictive and prudential, i.e. only what can be calculated is rational. As any consideration about whether to trust boils down to a risk-assessment of expected gains, there is little space for "genuine" trust as a worthwhile, autonomous, or alternative concept. And this is Williamson's stance with regard to calculated risk, as will become clear in this section.

4.1 "Personal trust" within Williamson's typology of trust

In W93, trust (i.e. "personal" trust for Williamson) is characterised by three attitudes A has towards B: (1) conscious absence of monitoring, (2) forgiving predilections or a predisposition to "ascribe good intentions", and (3) discrete structural treatment (W93, pp. 482 – 484). Conditions (1) and (3) imply the absence of calculativeness: neither can safeguards be envisaged according to (1) (cf. section 4.2.2) nor is there a maximising calculative analysis but rather a situational qualitative assessment and perception according to (3). The second condition, however, does not stand in tension with a calculated risk view. If A, while considering whether to trust B, calculates that the potential gain outweighs the risk of being betrayed, then this does not exclude A ascribing good intentions to B (cf. my definition of trust in section 3). To ascribe good intentions does not exclude taking a calculative stance, but it is not necessary either.

It is evident that his account of trust stands in clear tension to his assumption of opportunism. It corresponds furthermore to an "externalist", "end-directed" and "strategic" attitude as elaborated previously in section 3.1 – it is thus a decidedly non-calculative concept. The status of these three conditions for trust is thus of conceptual and analytical value to the extent that

³⁰ The second type of trust in Williamson's typology basically accommodates socialisation. "Institutional" trust takes into account "the social and organizational context within which contracts are embedded" (W93, p. 486). This trust is designed specifically "with reference to the institutional context (environment) of which they are a part" (W93, p. 486) in order to create efficient outcomes. Such "hyphenated trust" is calculative although less so than proper calculated risk, because its safeguards are not of legal but cultural or social nature.

³¹ The concrete concept of a "discrete structural treatment" will be introduced in section 5.2.

this is how Williamson would have "unpacked" and assessed trust were he genuinely interested in such an endeavour. However, these conditions and trust only holds between "family, friends, and lovers" and thus in "very special", limited and explicitly non-economic relationships – "if it obtains at all" (W93, p. 484). Williamson provides thus no reasons why we should be particularly keen on investigating trust further. It is rather "the stuff of which tragedy is made" and agents without "the natural instincts to behave noncalculatively ... will need to figure it out – to look ahead and recognize that calculativeness will devalue the relation" (ibid.). Yet, to figure it out is not enough for those agents "unable to shed calculativeness – because calculativeness (or fear) is so deeply etched by their experience" (ibid.). Ironically, my point in the present thesis is that this sentence applies spot-on to Williamson's stance on trust and pervasive calculativeness.

More generally, Williamson's discussion of trust is instrumental rather than substantial to his argument. It illustrates the delineation of the (supposed) limits of calculativeness. This is because calculative, epistemic updating, "even if only of a low-grade kind, can have corrosive effects" (Williamson 1993b, p. 147). And as these effects will lead to a less efficient outcome, it is the calculative thing not to behave calculatively. When Williamson suggests that agents have to "figure out" and "look ahead" in order to recognise such limits, he does so only to the extent that such an attitude corresponds to an ultimately calculative "farsighted view of contract" (W93, p. 484). However, in doing so – and this will be my criticism of his position in part III – he disregards and undermines his proper account of calculativeness' "corrosive effects". Let us turn now to his arguments for a minimal and merely instrumental account of trust.

4.2 Williamson's distrust on trust

4.2.1 Competent calculativeness: risk all over the place – no space for trust

For Williamson, "transaction cost economics refers to contractual safeguards, or their absence, rather than trust, or its absence" (W93, p. 463). It is not the rational thing to trust (i.e. take no precaution) – one will be taken advantage of due to the opportunism of the other agents. Instead of analysing "trust" one should focus on calculative safeguards (cf. section 4.2.2). Furthermore, as phenomena of trust are analysed in calculative terms they can be reduced to risk – a reduction, on which Williamson's predominant "calculated risk" type of trust relies. To act "competently" calculative, in this context, is to follow these criteria (W93, p. 467):

- 1. to be aware of the expected net gains and probabilities related with the outcomes;
- 2. to behave cost-effectively;
- 3. to choose the trading partner with whom the largest net gain is associated; and
- 4. to know prices, hazards, and safeguards upfront and determine them simultaneously.

The reduction of "trust" to risk relates to the first of Williamson's criteria of competent calculativeness, namely, that the expected gains and probabilities of the outcomes are to be known. Trust is warranted if the expected gain of taking the risk in trusting another party is positive (W93, p. 463).³² And the risk of trusting someone corresponds to the risk of being betrayed –

³² Cf. Williamson (2012, p. 41): "So construed, previously fuzzy conceptions of trust are purportedly clarified and made more operational when trust is treated as a subclass of calculated risk."

situations of trust correspond thus to "a subclass of those involving risk" (Coleman 1990, p. 91). Coleman's rational approach to such trust is to follow the same reflections as if one was "deciding whether to place a bet" (ibid., p. 99). A's trust is warranted if the probability ratio between B being and not being trustworthy is higher than the ratio between the potential loss and the potential gain: "[i]ndeed, the decision to accept such a risk is taken to imply trust."³³

Such an understanding of risk goes along with its everyday usage: a risk is a potential of an action to lead to an undesirable outcome or a loss. A's personal appreciation of what can be lost – the stake – as well as any beliefs or available evidence about B can be reflected in the risk-assessment. The higher the importance of C, i.e. what A entrusts B with, and the less reliable or trustworthy B is; the more A needs to trust B as a result and the higher the risk implied.³⁴ This relates to Williamson's second criterion of a "competent" calculativeness, namely to behave cost-effectively. Any incurred cost, actual or potential, needs to bring about the desired effect and has to be outweighed by the consequent benefit. The choice needs to be efficient too in that the highest "net gain" is achieved – which is Williamson's third criterion.

This implies, in Knight's (1957) terms, that "calculative trust" applies to situations of "risk", i.e. when the negative potential is *measurable* and calculable. It does not apply to situations implying uncertainty where the probability of the undesirable outcome is "unmeasurable". Calculated risk focuses on the reliability of outcomes, and not on situations of uncertainty. But if the individual uses trust in order to "reduce social complexity" – by substituting "missing information" with other internal considerations (Luhman 1979, p. 93) – trust is taking place under uncertainty rather than under measurable risk. Moreover, if we had sufficient information in order to establish a well grounded quantitative assessment of the odds and risks, it would not make sense to refer to trust in the first place (cf. sections 3 and 5.2.2). If everything was calculable, reference to trust would be superfluous and redundant. And yet, this is precisely Williamson's argument: calculativeness reduces situations of uncertainty to such involving risk, it treats uncertain contexts *as if* they were taking place under measurable risk. Assuming opportunism does an important job here, because it reduces B's strategic leeway to the worst case scenario.

For Williamson, "calculative trust" in economics and the commercial world is a "strategic" modality of action in the words of Khalil (2003). A majority of the occurrences of trust can and need to be explained in calculative terms of risk. This is why Williamson concludes that "it is redundant at best and can be misleading to use the term 'trust' to describe commercial exchange for which cost-effective safeguards have been devised in support of more efficient exchange. Calculative trust is a contradiction in terms" (W93, p. 463). According to W93, the primary aim of TCE is to reduce the need to rely on or use the concept of "trust" and maximise the possibilities of calculative monitoring – as we shall see in the following sub-section. In order for such

³³ W93 (p. 463). Here, Williamson presupposes Gambetta's (1988, p. 217) definition of trust as A's "subjective probability" assessment about the reliability of B doing C. The underlying assumptions are that A cannot (yet) monitor B doing C although C directly affects A's own situation and actions.

³⁴ Note that a trust-as-risk assessment can theoretically encompass all the relevant mental aspects of A: what information or evidence is processed, whether A is risk-seeking or risk-averse, etc. However, optimally, a trade-off should take place at this point: the more mental processes or deliberative aspects are integrated and subsumed in the "risk-assessment" of A, the harder it is to discern the different elements involved in trust. As such elements I understand, e.g. different sorts of beliefs by A about B (trustworthiness, reputation) or by B about A (reputation, willingness to punish), norms, group belonging, stake (cf. Castelfranchi 2008).

³⁵ Knight (1957, p. 20). According to Knight, "the divergence between actual and theoretical [perfect] competition" is due to uncertainty (ibid.).

calculativeness to apply meaningfully, prizes, hazards, and safeguards need to be known beforehand and determined simultaneously (i.e. the fourth of Williamson's criteria of a "competent" calculative behaviour) – if they were not, what would be calculated in the first place?

Now, one could argue against Williamson and say that such an account is an unjustified distortion of trust as it takes place and is used in real life, i.e. under situations of genuine uncertainty. For Williamson, however, "the object is not to describe human actors in a user-friendly way but to understand complex economic organization" (Williamson 1993c, p. 99). Williamson's purpose of calculativeness is to provide clear guideline about how an (economic) agent should behave in order to achieve a rational, calculative, and efficient outcome (cf. section 2). Merely to state that uncertainty is involved – an empirical fact, that Williamson is not denying – is of no help in such an endeavour. What to do then? Williamson's advise is clear: "First, do not contract in a naive way. Second, attempt to mitigate opportunism in cost-effective ways" (Williamson 1993c, p. 105). Let us now focus on how this works in reality.

4.2.2 Safeguards as a consequence: how contracts save us from ourselves

Williamson's "ex post governance" "organize[s] transactions so as to economize on bounded rationality while simultaneously safeguarding them against the hazards of opportunism." These safeguards – predominantly of contractual or legal nature – can take several forms but serve mainly three purposes: aligning incentives through imposing penalties on premature termination, pre-determining dispute-solving mechanisms (e.g. arbitration rather than litigation), or introducing regularity and continuity in a trading relationship (Williamson 1985, p. 33 – 34).

The absence of hazards of opportunism corresponds to a "spot market", i.e. a condition which is assumed in neoclassical economics where there is no uncertain strategic interaction between individuals taking place. Existing hazards, in turn, are mitigated by safeguards. In engaging in a deal, the contractant must make sure that her or his partner has no or a minimal incentive to default, e.g. by defining clear sanctions in the contract. In this vein, he states that reputation effects of "credible commitments" correspond to a safeguard against breaching a contract (W93, p. 473). To the extent that Williamson discusses concrete examples implying (successful) instances of trust (W93, pp. 464 – 466, 469 – 475), they are (re-)interpreted by showing hidden or implicit safeguards. He considers trust a bad, illusionary and unwarranted safeguard against the hazards of opportunism. Only "legal" contractual safeguards effectively align incentives arising from opportunism. It is only by stipulation and anticipating probable defaults that our craftsman is justified in making a calculative deal with the subcontractor.

Note that these safeguards are costly - e.g. the craftsman needs time and/or money to consider the potential strategic possibilities of the subcontractor, devise a corresponding contract, monitor the execution of the contract, potentially engage arbitration or litigation efforts, etc. As Williamson's agents are cost-effective and efficient (the second and third condition of competent calculativeness - cf. section 4.2.1), they will implement only those safeguards which are calculatively necessary given the risk of a default. Only those safeguards will be taken which cost less than the potential loss when the trading partner behaved opportunistically safeguards being absent. Hence, they do not need to contractually hedge every possible eventuality. How-

³⁶ W93 (p. 459). The present sub-section focuses on safeguarding aspect. We shall deal more in detail with Williamson's account of economising on bounded rationality in the following section 4.2.3.

ever it is important to realise that trust represents no viable safeguard to Williamson – to the contrary, it invites opportunistic behaviour as we shall see in the following sub-section 4.2.3.

But, does the very assumption of opportunism then do justice to the scope of phenomena of trust? Opportunism makes the idea of "trust" impossible: given that humans are assumed to be selfish "with guile" there seems no reason to trust anybody in the first place. In this vein criticise Bromiley & Harris (2006) Williamson's position in which ex post safeguards seem the only device against hazards – A cannot sufficiently assess in advance whether and to what extent B is opportunistic or "trustworthy". But, according to them, Williamson thereby neglects the possibility of taking "ex ante screening" efforts. Such efforts refer to a potentially calculative heuristic in assessing the degree opportunism of one's partner prior to signing a contract. But individuals can vary in their opportunism and hence their credibility depending on the evidence taken into account – Williamson's TCE account is not so realistic after all if it disregards this circumstance. On this basis Bromiley & Harris (2006, p. 131) conclude, that "[r]ecognizing the variability of opportunism, and studying trust creation, detection, and the implications for governance choice, would significantly refine and extend the research agenda of TCE."

Missing nuance in their conclusion notwithstanding, i.e. ex post *governance* is more prudential and reliable than ex ante *speculation* (notably, in view of the assumptions of opportunism, cf. section 2.2), I basically concur with Bromiley & Harris' conclusion. I do so under the condition that TCE is understood as a predominantly descriptive theory, one which aims at providing a (more) realistic account of human agency (than neoclassical economics). However, their reading falls short of the prescriptive and evolutionary nature of calculativeness and thus Williamson's whole TCE account: to the extent that W93 presents an account of when one *should* trust or engage in a deal, his position is sensible (cf. section 8.2).

4.2.3 The need to economise on trust: save on a luxury you cannot afford anyway

Because "cost-effective safeguards have been devised" to promote efficiency in trading relationships, Williamson concludes that we need to "economize on trust". But the need for legal safeguards originates in the bounded rationality of Williamson's TCE agents. Their limitedness in processing information leads to incomplete contracting and thus transaction costs. To the extent that individuals have to economise such costs in their commercial activities they will also try to pre-empt the causes of these costs. The occasions where the imperfections of such rationality are brought to bear most have to be minimised too – we need "to economize on bounded rationality" and make this insight "endogenous" to our assessment of organisation, governance, or trading relationships (W93, p. 458). The underlying idea is that mind represents a scarce resource as we can only limitedly deal with (strategic) complexity. As a result, institutional and

³⁷ Cf. Williamson (1985, p. 29): "[TCE] maintains that it is impossible to concentrate all of the relevant bargaining action at the *ex ante* contracting stage. Instead, [ex post] *bargaining is pervasive* – on which account the institutions of private ordering and the study of contracting in its entirety take on critical significance." The calculative management of the hazards focuses thus on the post-contractual period because the trading partner might default due to (temporary) disadvantages or alternative opportunities which occur at the execution stage. "This is why *ex post* governance is necessary: *ex ante* agreement cannot sufficiently attenuate opportunism in contract execution and renewal stages" (Vromen 1995, p. 58).

³⁸ Williamson (1985, pp. 58, 64). Cf. Noorderhaven (1996, p. 106). In fact, the absence of ex ante efforts seems undermine Williamson's account of "credible commitments". How else than by an *ex ante* reference to reputation could such commitments enter the governance of the exchange in question?

³⁹ W93 (p. 483). This argument is influenced by Gambetta (1988, pp. 224ff.).

organisational means need to be devised or its setting arranged such that it reduces complexity or facilitate individuals to deal with this complexity (cf. Vromen 1995, pp. 61, 101).

Now, trust seems to fulfil a similar role in that it "reduces social complexity" (Luhmann 1979). Williamson agrees that social reality is too complex to deal with by means of individual rational case-by-case considerations only. But W93 leaves no room for trust in this.⁴⁰ Trust is an unreliable safeguard against opportunism and the concept of risk covers all its relevant occurrences in the commercial world. This explains trust's redundancy. But to actively economise on trust is central because trust itself represents a transaction cost and hazard and has thus to be minimised in Williamson's view (cf. Hardt 2009, p. 32). Williamson differs here from another established and intuitive approach to trust which considers trust not as a transaction cost itself but rather as a "social capital" and thus a means to save on transaction costs.

Adherents of the "social capital" account on trust agree with Williamson that (moral) hazards exist in the social world. They, however, do not see trust as a cause of the consequent transaction costs – a cause we would have to economise on. In this context, Arrow (1972) already observes that "economic backwardness" might result from "the lack of of mutual confidence". But it was only with major monographs or anthologies from political scientists or sociologists, like Gambetta (1988), Coleman (1990), Fukuyama (1995), or Putnam (2000) that a proper analysis on the role of trust in terms of social capital took off the ground. The basic idea behind this specific interpretation or framing of trust is that social relations are valuable in that they enable the creation of wealth, enhance aggregate productivity, and lower transaction costs.

Zak & Knack's (2001) economic analysis stands in this tradition. They conceive trust as manner to save on monitoring and thus transaction costs (namely, the costs of verifying the trustworthiness of the other party). For them, trust has to be traded-off with the need and cost of control.⁴¹ They present a general equilibrium growth model along variables of formal and informal structures⁴² with a principled actor, the investor, and to-be trusted broker. They conclude and empirically confirm that "trust is higher in more ethnically, socially, and economically homogeneous societies, and where legal and social mechanisms for constraining opportunism are better developed with high-trust societies exhibiting higher rates of investment and growth" (Zak & Knack 2001, p. 297). If there are operative sanctioning institutions then trust can work as a social capital and serve as a substitute for monitoring. Williamson, however, does not seem to agree with the high-trust / low-trust dichotomy (W93, p. 473) nor to admit any role to trust in the economic sphere. We will come to this aspect in section 8.2. For now, it matters that whereas Zak & Knack (2001) consider trust as a manner to save on costs of controlling and monitoring, Williamson does not see it as a legitimate substitute for legal and institutional safeguards. For him, any such trust is "blind" and potentially prone to opportunistic exploitation -inviting counterproductive and vet avoidable exploitation makes trust a transaction cost itself.⁴³

⁴⁰ Agents in W93 deal successfully with complexity by means of their farsightedness: "although complex contracts are unavoidably incomplete, a farsighted approach to contract is often feasible" (W93, p. 460).

⁴¹ Zak & Knack (2001) see trust as a gradual substitute to control (cf. section 3.1). They would thus probably agree that trust removes the incentive "to check up on other people ... [thereby making] cooperation with trust less complicated than cooperation without it" (McLeod 2011, ch. 3; cf. Luhmann 1979).

⁴² Their model is sophisticated in that both formal (judicial systems, investigative agencies) as well as informal institutions (reputational effects, social sanctions, or guilt) have an influence on agents' decision making.

⁴³ Related to this, cf. Elster & Moene (1988, p. 5): "We may hope that trust will come about as the by-product of a good economic system (and thus make the system even better), but one would be putting the cart before the horse were one to bank on trust, solidarity and altruism as the preconditions for reform."

However, a more fundamental scepticism towards trust underlies Williamson's call to economise on it: "I maintain that trust is irrelevant to commercial exchange and that reference to trust in this connection promotes confusion. ... If calculative relations are best described in calculative terms, then diffuse terms, of which trust is one, that have mixed meanings should be avoided when possible" (W93, p. 469). Reference to "trust" does not help to understand situations where it occurs – to the contrary, it creates more confusion because it conveys an unwarranted reduction of social reality. As a consequence, we should economise on trust.

"Trust" is a "diffuse" term because it is an often unconsciously applied mode of speaking. As such, it masks and stylises the calculative nature of exchange: "[p]ervasive calculativeness notwithstanding, the rhetoric of exchange often employs the language of promises, trust, favors, and cooperativeness. ... If, however, the basic deal is shaped by objective factors, then calculativeness (credibility, hazards, safeguards, net benefits) is where the crucial action resides." "User-friendly" idiomatic reference to trust, promises, etc. is often made in accounting for many different occasions, indiscriminately of what is really implied or happening in those situations. It is a vague, indeterminate and unnecessarily wide notion with no analytical benefit.

However, Williamson is not per se dismissive of "the artful use of language" as with the term trust. It allows to achieve "deals that would be scuttled by abrasive calculativeness" (W93, p. 467n70) and avoids a counterproductive and worse outcome that would take place with applying calculativeness. Yet, the decision not to take a calculative attitude in certain situations can be ultimately calculative again – in order to maintain its pervasiveness – if and only if it leads to a more efficient final outcome. This is how pervasiveness does not necessarily undermine genuine non-calculative trust or "personal trust" in Williamson's terms. How Williamson discerns those limits of calculativeness shall be dealt with in the following section 5.

On top of that, whom to trust and whom to concede such a privilege must be itself subject to responsible calculative scrutiny. Such a positive reading of why we should economise on trust is analogous with matters of solidarity, altruism, or love. 46 If we loved everybody unconditionally – both those who deserve and reciprocate "the most precious good" and those who would abuse and take selfish advantage of it – this would be an unjustified waste: we would provide the entitled with less and the egoists with more than either deserve. To economise on trust thus also implies the duty to choose carefully whom we trust and why. As we cannot reasonably trust everybody unlimitedly, we do better to genuinely trust the right people (those who are close to us), for the right reasons (because it is ultimately calculative), and in the right occasions (surely not in business) – trust has limits too, as we shall see in section 6.

⁴⁴ W93 (p. 467n70). In the same spirit is trust called "vernacular" by Hardin (2006).

⁴⁵ Here – just as with personal trust (cf. section 4.1) – Williamson discusses trust again only in a instrumental and non-substantial fashion, i.e. in as much as it helps to establish the ultimate calculativeness of the effects.

⁴⁶ This example is based on the thoughts of the British economist Sir Dennis Robertson, cf. W93 (p. 483n121).

MA-thesis: "How much Trust can Economists Cope with?"	Darian Heim
PART II: THE LIMITS OF CALCULATIVENESS AND	TRUST

5. The limits of calculativeness: where business as usual can go wrong

If the limits of calculativeness are trespassed, it can give rise to "excesses" and "mistaken assessments of many economic phenomena" (W93, p. 453). But Williamson considers these excesses as "usually remediable": if they "are displayed and understood, the distortions can be anticipated and can thereafter be folded in at the design stage." In this sense is "the analytical reach of the calculative approach to economic organization ... extended rather than diminished by admitting to these limitations A (more farsighted) calculative response to the (myopic) excesses of calculativeness thereby obtains. Provided that bounds on rationality are respected, calculativeness opens the door to a deeper understanding of economic organization" (W93, p. 454). We shall now focus on these limits by first discussing the necessity to discern them, then focus on the question where those limits reside, before ultimately turning to the specific nature of the purported excesses – its "dysfunctional effects". The question of how these findings are "folded in at the design stage" will be postponed to section 8.1.

5.1 The necessity to discern these limits: why we should care...

To realise and discern the limits of calculativeness helps to extend the analytical reach of calculativeness. Three considerations justify to dedicate a whole sub-section to what seems to be answered with the above quote in W93. First, Williamson admits that there *are* limits to the calculative approach. Second, these limits apply to how individuals perceive a relationship *internally* rather than how it is assessed externally. Third, recognising the limits of calculativeness leads to a higher analytical accuracy and thereby strengthens the calculative approach.

First, if calculativeness is a prescriptive concept, i.e. it defines an ideally optimal behaviour rather describing wide-spread factual behaviour, there would be no need to discuss its limits in the first place. In fact, adherents of a decidedly prescriptive neoclassical account of hyper-rationality do not appear to consider the limits of their approach as thoroughly as Williamson. Yet, his discussion of the limits of calculativeness appears limited itself in that it considers those limits only in as far as they can be explained as the result of calculative consideration. This is why Williamson calls non-calculative trust only "nearly" so – "[c]alculativeness ... always reappears." I suggest a literal interpretation of Williamson's stance: for him, there are limits to calculativeness but how to interpret or justify them is another question.

Secondly, for calculativeness to be applicable (i.e. to analyse a situation in such terms) it does not matter whether the agents in question perceive their actions as calculative or not. The focus falls on resulting outcomes and ultimate behaviour independently of the inner stance of the agents (cf. section 2.1.1)— this, however, is not to say that their way of perceiving their relation has no influence on the calculativeness of the outcome as we will see in sections 5.3 and 7.1. If it matters for the efficiency of certain relationships whether the agents perceive them as calculative or not then the limits of calculativeness apply. To discern those relationships where the internal stance influences the overall outcome is the aim and purpose of Williamson's discussion of the limits of calculativeness.

⁴⁷ W93 (p. 486). Alternatively, W93 (p. 479): "[i]f, however, the decision to suppress calculativeness is itself purposive and calculative, then the true absence of calculativeness is rare if not nonexistent."

In order to have a clearly defined analytical reach, thirdly, a "descriptively accurate" language is needed. A Calculativeness provides such accuracy as agents' opportunism gives raise to systematic hazards in trading relations. And these hazards can be neutralised by means of contractual safeguards which agents will and should install due to their farsightedness and awareness of their bounded rationality. Trust does not provide such accuracy, it is considered "familiar", "user-friendly", and "transparent" and thus not requiring "microanalytical examination." Moreover, as Williamson goes on, "calculativeness is perceived as a threat to user-friendliness, the concern being that the basis for trust will be eviscerated if it is examined in a microanalytic way" (Williamson 1993a, p. 502). This "threat", however, has to be delivered on and W93 is an attempt to do so. Williamson aims at catching up on a lapse by other calculatively inclined analysts of trust, e.g. Coleman (1990). The microanalytic calculative foundation of trust are thereby strengthened and a higher descriptive accuracy reached such that the limits of calculativeness can be better recognised, according to Williamson.

This is illustrated best by another cost of "user-friendliness" Williamson discusses: "The world of commerce is reorganized in favor of the cynics, as against the innocents, when social scientists employ user-friendly language that is not descriptively accurate – since only the innocents are taken in. Commercial contracting will be better served if parties are cognizant of the embeddedness conditions of which they are a part and recognize, mitigate, and price out contractual hazards in a discriminating way" (W93, p. 485). If we are made to believe that the market ("the world of commerce") is ruled by non-calculative trust – i.e. monitoring is absent and mutual promises are said to be perfectly reliable - our "innocent" naivety would be exploited because this is not how the market works (cf. De Vos & Wielers 2003 and section 6). To know the contextual "embeddedness conditions" allows us to recognise the limits of calculativeness. We know in what context a calculative attitude leads to counterproductive outcomes and in what contexts does it not. Where it does, one has to take a non-calculative stance, where it does not one can remain calculative. The closing sentence of W93, then, is telling of how the limits of calculativeness need to be found: "The irony is that the limits on calculativeness are realized by examining user-friendly terms – of which 'trust' is one – in a thoroughly calculative way." (W93, p. 486) Let us now turn to the cases where Williamson discerns limits to calculativeness.

⁴⁸ W93 (p. 485) and Williamson (1993a, p. 502). "Descriptive accuracy" is not about a precise and realistic description of actual human behaviour. A theory needs rather to be conceptually clear-cut and neat (contrary to user-friendly notions as trust) in its categorisation of various observations. "Descriptive accuracy" is used by Williamson and Craswel analogously to precision in prediction (which does not mean that it has to be true).

5.2 The locus of those limits: where context matters

A "discrete structural analysis" applies once economics is taken beyond its quantitative and marginal approach. Such an analysis deals with other things than economics' classical subject matter of commodities and money within of a market: here, institutional and organisational alternatives (determined through technology or hierarchy) are *qualitatively* and separately compared (Williamson 1991, pp. 470ff.). It is within such a framework that Williamson addresses the limits of calculativeness while discussing "nearly non-calculative" trust. Such an analysis could apply within and between governance structures (W93, p. 480) or with regard to informal organisation. With regard to the latter, it can imply the analysis of "a manifestation of a more general condition of 'atmosphere,' the effects of which serve to distinguish market and hierarchical modes of organization. Such distinctions support comparative analysis of a discrete structural rather than (as is more customary) of a marginal analysis kind" (Williamson 1996, p.42). "Discrete structural analysis" complements the marginal analysis by allowing a focus on the functioning of hierarchies and other forms of organisation beyond markets.

An approach similar to discrete structural analysis, which serves a central role in Williamson's attempt to delimit calculativeness, is "economics of atmosphere". "Atmosphere" denotes "a more general condition" (Williamson 1996, p. 42) of economic transactions where "there are interaction effects to be taken into account" (Williamson 1975, p. 37). For our purposes, it matters that it is a tool for discerning where a calculative approach leads to less efficient outcomes than without calculativeness (W93, p. 480). In order for the calculative approach to be applicable, we need something "to calculate" and thus to quantify what is involved. However, the very attempt of quantification can have an influence on the object of study, change its nature, and lead to a less efficient outcome. Say, as an example, a teacher wants to increase class participation and integrates the number of the questions the students ask during class into the grading scheme. Imagine, not too unrealistically, that weak students would be afraid of asking stupid questions participating even less, whereas the good and talented ones feel patronised and retreat internally. As a consequence, the overall quality of the class (participation-wise and with regard to the grades) would sink due to the teacher's attempt to introduce a "transparent" quantitative incentive. To take "atmosphere" into account, then, means to consider the consequences of an action as well as the broader context and interdependence relations within of a system.⁴⁹

More concretely, these limits apply to what Williamson calls "personal trust": "[i]f calculativeness is inimical to personal trust, in that a deep and abiding trust relation cannot be created in the face of calculativeness, and if preexisting personal trust is devalued by calculativeness, then the question is how to segregate and preserve relations of personal trust." The limits of calculativeness reside where it implies less efficient outcomes compared to the situation without it. And Williamson limits those occurrences to "personal" trust. At this point, however,

⁴⁹ A similar point is made by Francesco Guala with regard to game-theory: in acts motivated by trust or reciprocity agents consider counterfactual consequences of the possible outcomes – B takes as well into account what A *might have done* beforehand. B's interpretation of the game and consequent decision does not need to depend on the bare decision of A. It hinges on the interpretation of A's omissions in the game too: "the utilities are path-dependent: they do not depend on the outcomes taken in isolation, but on the *whole structure of the game*" (Guala 2006, p.15). This point holds as well for our present assessment. "Atmosphere" or "embeddedness conditions" (these are Williamson's words) matter in the assessment of actors' behaviour.

⁵⁰ W93 (p. 483). Cf. Williamson (2012, p. 41): "trust [is] reserved for close personal relationships that would be devalued by calculativeness and that commercial relations and personal relationships of convenience be treated in a calculative way (for which risk and the calculation of expected net gains are appropriate)."

we will need to ask how calculativeness can lead to inefficient outcomes or, as Williamson calls them, "unintended effects" which often have "dysfunctional consequences" (W93, p. 460).

5.3 Unintended effects & dysfunctional consequences: struggling with reality

As an example of how calculativeness can lead to such consequences, Williamson discusses the case of "metering". 51 The intention or act to measure and quantify aspects of job may have an impact on the job itself. This is most likely if "functional separability" does not involve the analogous separability of attitudes. Suppose an existing job (corresponding to a trading relation where offer and demand of labour are "exchanged") was separated into all aspects which were each measurable on their own in order to scrutinise and assess the efficiency of the job by means of "piecemeal calculativeness". However, the worker might interpret it as a missing belief in his capacities and therefore change the stance towards the job. Through such an "interaction effect" her or his overall "cooperative attitudes are impaired". Being less likely to identify with the shared goal of the relation, the worker might shun or lessen efforts in aspects which are hard to assess and yet essential for the success of the job. And this leads to "spillover effects from easy-to-meter onto hard-to-meter activities". 52 Moreover, "[t]he neglect of such interaction effects is encouraged by piecemeal calculativeness, which is to say by an insensitivity to atmosphere."53 This is not to say that calculative "metering" has to be abolished completely. But its limits – where the calculative quantification leads to less efficient results, where the functional separation impacts the attitude involved – need to be known: "[a]n awareness of attitudinal spillovers ... serves to check such excesses of calculativeness" (W93, p. 481).

However, spill-over effects – carrying over attitudes and concepts from one context to another – are not properly worked out in W93. Williamson does not provide any more general criteria for the functioning and justifiability of spill-over effects. He rather "takes the (irrational?) human propensity to overgeneralize as a given fact of human nature and assesses the costs and benefits of calculativeness in light of the risk created by that fact" (Craswell 1993, p. 498). Williamson sees spill-over effects probably as another concession to "human nature as we know it". However, if Craswell is right in his reading of W93, then it is the existence of spill-over effects that makes Williamson stipulate non-calculative "personal" trust – if there were no inefficient spill-over effects, then he would need no account of trust. To the extent that trust is rather limited – it is "reserved for very special relationships among family, friends, and lovers" (W93, p. 484) – to the same degree does Williamson limit the impact and importance of spill-over effects. He links the scope of potential, legitimate and thus rational spill-over reactions to the limits of calculativeness – i.e. limits, which are not so limiting after all.

⁵¹ All the following quotations in this paragraph are from W93 (p. 480).

⁵² Cf. Williamson (1975, p. 69): "Consummate cooperation is an affirmative job attitude – to include the use of judgment, filling gaps, and taking initiative in an instrumental way. [footnote omitted] Perfunctory cooperation, by contrast, involves job performance of a minimally acceptable sort ... The upshot is that workers, by shifting to a perfunctory performance mode, are in a position to 'destroy' idiosyncratic efficiency gains."

⁵³ Cf. Craswell (1993, p. 497): "if workers are monitored on a strict calculative basis in certain aspects of their jobs, they may come to view other aspects of their jobs in calculative terms as well and start discharging their other duties in a merely perfunctory manner. [footnote omitted] If you are intolerant of even the slightest infringement of your rights by me, I may become equally intolerant of your infringements of my rights."

⁵⁴ Williamson (1985, p. 44). Cf. ibid. (p. 405): "...transaction cost economics must be place in perspective, lest it become dehumanizing. Thinking about economic organization exclusively in an instrumentalist way can spill over into a treatment of individuals as instruments. Such excesses of instrumentalism have to be checked." Indeed, Williamson makes reference to the Kantian moral imperative not the treat individuals as mere means (ibid., p. 271). A relationship has value independently of its outcome – but to what extent?

Is there any space for a genuine account of spill-over-effects and thus for trust in W93? If we focus on another spill-over effect we might be more optimistic: the internalisation of values. For Craswell (1993, p. 499), "[the] argument for excluding calculative theories from the personal sphere rests entirely on the undesirable effects that calculativeness would have *if it were internalized by the participants in those relations.*" Only "very special relations" require an almost entire absence of calculativeness to be viable and durable – for them "the optimal level of *conscious* metering is zero" (W93, p. 481). The opposite raises the probability of an "(involuntary) positive feedback" prone to a "Type I error", where non-calculative relationship would be mistakenly perceived as calculative (W93, p. 481 – 482). Williamson discusses the undesired internalisation of calculativeness with reference to Robert Nozick's interpretation of "Love's Bond": if the intention in a loving relationship is to form a "we", then the willingness to trade-up will destroy such a collective identity (recall our initial example of the married couple). The discrete structural nature of love disallows calculative "trading up". The values and implications attributed to calculativeness lead to a counterproductive result in such personal cases.

The analogous argument applies to trust. A calculative analysis presupposes that aspects or the whole of a relation can be quantitatively assessed or its output measured. This, in turn, allows for a comparative analysis either of the same relation over time or with alternative partners. Calculativeness, then, makes it possible to monitor, compare, and control activities. However, to be monitored or controlled will change the perception of that very relationship by the parties. Indeed, A's controlling of B corresponds to A's "refusal to be vulnerable" and it thus undermines the very nature of trust (cf. section 3.1). In the words of McLeod (2011, ch. 1, my adaption): "the more monitoring and constraining [A] does, the less [A] *trusts* [B]." If either party determines its trusting or trustworthy stance on the absence of control, then a calculative approach will lead to an end of the trusting relationship defined as such.

Taking a step back, note that the unintended consequences can only be addressed because Williamson assumes bounded rationality (Vromen 1995, p. 60) – hyper-rational omniscient agents do not face such consequences. Williamson's account, then, is more realistic because it does not assume the full knowledge of all implications. However, it does not make him negate the rationality of a specific purposeful act altogether. It is the farsightedness of the individuals involved that allows them to perceive and discern the discrete limits of calculativeness in the first place. Williamson's agents are not myopic, i.e. not solely preoccupied with their *immediate* hermetic self-interest. They are able to anticipate the long-term and wider effects of their actions and act accordingly to their interests with a wider range of consequences in mind. However, to what extent farsightedness represents a realistic assumption is another question.

⁵⁵ Cf. Merton (1936, p. 902): "...it would seem that interest, if it is to be satisfied, demands such objective [hyper-rational] analysis of situation and instrumentality, as is assumed to be characteristic of hominis oeconomici. ... It is as much a fallacious assumption to hold that interested [purposeful] action in fact necessarily entails a rational calculation of the elements in the situation as to deny rationality any and all influence over such conduct. ... [B]ecause a particular action is not carried out in a psychological or social vacuum, its effects will ramify into other spheres of value and interest."

6. Limits of "personal" trust: non-calculativeness stops where business begins

Williamson justifies to approach trust of a "nearly" non-calculative nature in a discrete structural way because such relations "would be seriously degraded if a calculative orientation were 'permitted." Interestingly, he nuances this statement immediately afterwards: "[c]ommercial relations do not qualify" (W93, p. 486). But why can commercial relations not be degraded by a calculative orientation? Recall that in the beginning of section 2 we elaborated on how Williamson sees calculativeness as the distinctive mark and approach of economics. The definition of economics is based on its approach rather than its subject matter. So far, Williamson has analysed all occurrences of "trust" calculatively – i.e. independently of the field of application. However, this seems to have changed with regard to trust. "Personal" trust has to be kept non-calculative in order to lead to a more efficient outcome. But Williamson shifts the criterion from calculative efficiency to questions of subject matter when determining the extent of trust: trust stops where commerce begins – this is the limit of trust.

However, nothing in a "discrete structural analysis" tells us what its legitimate field of application is and what not – such an approach is a tool of the TCE approach to complement calculativeness. Why should there be no inherent possibility to obtain dysfunctional consequences of calculativeness in commercial relations too? Recall Williamson's example concerning the effects of inefficient spill-over that result from "obsessive" and "piecemeal" calculativeness in section 5.3. If a worker is overly monitored and almost every aspect of his activity metered, "hard-to-meter" aspects of the job may be effectuated in a more "perfunctory" manner. If an employment relation is of commercial nature, we may doubt why degrading calculativeness does not apply. 56 Williamson's argument does not follow from his own example.

But Williamson argues that the almost complete absence of calculativeness applies only to trust and thus in very few and limited instances of human interaction – "very special" and intimate relationships. His worker-example might thus be an unfortunate choice of illustration. For him, calculativeness is pervasive – as a rather robust regularity – and applies to a vast majority of cases in the commercial world. This, however, does not exclude that in the commercial world episodical evidence is observed of what appears to be "obsessive" calculativeness leading to dysfunctional consequences. His example, then, illustrates that taking a non-calculative attitude due to supposed spill-over effects might appear to be the more calculative response in the short-run – the worker in question does a better overall job if his activities are not metered. However, the concession of spill-over effects in this respect would be irrational in the long-run. From a farsighted perspective, agents do better in getting used and conditioned to the fact that a calculative attitude – including metering – has to form part (and indeed does so) of the commercial world where non-calculative attitudes are crowded out over time.

In the foregoing argument, I have drifted gradually away from a realistic and descriptive account of aspects of spill-over effects. It rather suggests a prescriptive reading of why commercial relations do not qualify for non-calculative orientations. As a matter of fact, I do believe that this is the only manner to both make sense of and keep consistent Williamson's discussion

⁵⁶ At times, W93 seems to argue against his own qualification of the commercial world, e.g.: "Not only can added environmental sanctions [on the basis of calculativeness] be pushed to dysfunctional extremes in *purely commercial terms*, but the environment can be oppressive more generally" (W93, p.476, my emphasis).

of the limits of non-calculative trust.⁵⁷ Because the descriptive and prescriptive elements are inter-connected by means of evolutionary theory (cf. section 2.1), the commercial world should not be guided by non-calculative reflections. And indeed, despite of empirical evidence indicating the contrary, the commercial world is qualitatively quite different from personal relationships of trust. Commerce encompasses all the aspects of an economy which are related to trade and more generally business. And these are ultimately about quantified aspects – turn-over, benefits, losses, capital, salaries. This does not mean that non-quantifiable aspects do not exist in businesses; however, they are not determining. A company might have the most progressive and humane corporate culture - without a functioning economic basis (i.e. the incomes covering the costs) it will not exist for long. Williamson's main (implicit) worry appears thus to reside not in the excesses of calculativeness but rather in those of non-calculativeness. Unconditional trust, which is exclusively non-calculative and completely "blind" due to its emotional nature, is lethal in business: "[i]dentification and routinization in relationships may prevent us from recognizing and facing hazards of opportunism. ... [P]roblems of trust and betrayal in family firms and [professional] partnerships between friends can be especially acute because the reliability of personal bonds could not be questioned" (Nooteboom 2003, p. 92).

Williamson has to place himself on the prescriptive branch of calculativeness in order to establish that commerce does not qualify for effects of spill-over. Now, one could argue that the quote at the end of the previous paragraph shows that such a conclusion is not merely prescriptive but descriptive after all: "[i]f trust goes beyond calculative self-interest, it yields blind, unconditional trust, which is not wise and will not survive in markets" (ibid., p. 66). What is more real than an inefficient bankrupt firm? Even if we observe firms today who act dominantly on trust, we might legitimately doubt whether we will still see it operational tomorrow (compared to firms basing their activities *less* on trust). Obviously, the descriptive-prescriptive dichotomy is a matter of degree and context.⁵⁸ Being a gradual distinction, my point is more modest than arguing for the pervasiveness of non-calculativeness: the less Williamson's assumptions can be justified on the basis of (direct) factual observation of corresponding behaviour, the less his account will be different from that of neoclassical economic theory. If being different and autonomous from neoclassical economics is substantial to Williamson' TCE account, then he would need to re-consider his limits of trust. Moreover, he would have to accept that commercial relations do qualify for a non-calculative orientation. Where calculativeness leads to dysfunctional consequences we need to abstain from applying it – independently of the context or type of relation in question.

⁵⁷ For Bromiley & Harris (2006, pp. 131 – 133), Williamson's stance on commercial relations corresponds to "acrobatic contortions, intended to preclude the conceptual acknowledgement of trust at all cost; the assumptions employed to justify ignoring trust appear ancillary and *ad hoc*" (ibid., p. 133). Although I agree with their point in principle, their argument falls short of accounting for the evolutionary element that bridges the empirical observations and the prescriptive nature of Williamson's TCE account (cf. section 2.1).

⁵⁸ Cf. an interesting anecdote by Nooteboom (2003, p. 72): "In the early 1990s, I gave a talk on the governance of inter-firm relations, with an emphasis on buyer-supplier relations, to an audience from the car industry, in the Netherlands ... The audience [from the Dutch car industry] scolded me for being so naive as to take trust seriously. Trust, in their view, is naive and not fit for survival in markets (rather like the position taken by Williamson, 1993). ... [Another Dutch company, which explores natural gas,] took an opposite view, and scolded me for my cynical talk of opportunism. ... At the time, car sales had slumped, which greatly intensified price competition, and the crisis caused manufacturers to renege on the promises of durable relations to suppliers that had previously been given. The natural gas firm, by contrast, had a tight, government-backed monopoly in their field. They could afford to make life easy for their suppliers and themselves."

On a more general level, one might question whether it is a problem to switch the definition of economics from being based on its calculative approach, on the one hand, to its subject-matter of commerce, on the other. Indeed, they do not have to be mutually exclusive: we might be very fine with defining economics as the science about the efficient employment of scarce means for a given end, and then reduce such kind of analysis to commercial activity. However, once we abandon a purely approach-based definition of economics there will be limits to the scope and breadth of its findings and considerations. For sure, Williamson cannot have his cake and eat it too: either calculativeness is pervasive even with regard to non-calculative relationships, wherever they apply - in which case, it would be arbitrary and incoherent to exclude commercial relations. Or, commercial relations are necessarily calculative. Then, however, it would be inconsistent to define the calculativeness of other decidedly non-calculative relations based on their dysfunctional outcomes. Calculativeness can very well be pervasive in the commercial world due to its specific atmosphere, discrete structure and higher selection pressure. However, then it might not be genuinely pervasive with respect to other non-commercial and personal relationships. In this case, it cannot be pervasive – contrary to Williamson's claim in W93. On principled grounds, one cannot cherry-pick in situationally defining one's approach.

However, the impression of applying double standards goes further. In deciding what concept or theory applies best to what context, Craswell argues, "the debate should focus directly on the descriptive accuracy of the calculative and noncalculative theories... " Hence, we have to choose the theory that explains or predicts best and most accurately the behaviour in question. However, the controversial aspect comes up with the qualification that follows his quote: "...just as it did when Williamson evaluated those two rival theories as they applied to commercial dealings" (Craswell 1993, p. 500, my emphasis). The implication here is that Williamson or economists in general know best where the boundary between different theories or approaches needs to be set – at least, if it deals with *commerce*, economists' necessarily calculative subject matter. Implicitly, however, the same standard does not apply when economists approach issues which are classically not discussed under their heading – for them, non-calculative trust can and must be considered in calculative terms. How else can calculative and noncalculative theories suddenly become "rivals" with regard to commercial relations whereas there was no problem in describing non-calculative relations of trust as ultimately calculative? If the examination of "personal" trust is truly left to psychologists, it is hard to understand why Williamson still claims for pervasive calculativeness even in such proximate trusting behaviour.

MA-thesis: "How much Trust can Economists Cope with?"	Darian Heim
PART III: THE PERVASIVENESS OF CALCULATIV	ENESS AND TRUST

7. The calculativeness of non-calculative trust: Williamson's backdoor

For Williamson, it is "ironic" that the limits of calculativeness are investigated best "in a thoroughly calculative way" (W93, p. 486). However, true irony addresses often an insurmountable contrast or discrepancy between reality and appearance. If Williamson describes the real limits of an approach by means of the very approach, then this appears self-defeating – as if we strove after an end by means of its denial. Why should those situations where a calculative analysis has a (negative) impact on its subject be investigated by means of the calculative analysis itself? It appears as if such an approach undid and negated what was intended in the first place, namely, to find out where *not* to apply a calculative analysis.

The only manner in which to escape this conclusion, as I see it, is to consider the calculative analysis of non-calculative relations as a kind of a "meta-analysis". In section 2.1.1, I have presented the proximate-ultimate distinction as a template for such a meta-analysis. Non-calculative trust applies to the proximate level of how people perceive and experience their relation and identify with it. And the calculative analysis of it relates to the ultimate consequences and concrete effects of the behaviour involved. In section 2.3, moreover, I have advanced one account of how to interpret Williamson's pervasiveness of calculativeness: it underlies any behaviour latently and virtually in the form of a tolerance threshold beyond which "alarm bells" ring. In part II, however, we have seen that Williamson's predominant argument for why calculativeness is pervasive even in "personal" trust, is that – due to spill-over effects – a proximate non-calculative attitude yields more efficient ultimate outcomes. As this latter argument relates directly to Williamson's discussion of the limits of calculativeness, we will focus on this aspect here. In the following two evaluative sub-sections, we shall first consider whether Williamson's claim of pervasiveness is not itself an "excess" of calculativeness and, secondly, evaluate the usefulness of W93's account in view of the strategic uncertainty involved in situations of trust.

7.1 The boundary between "internal" and "external" understanding of trust

Williamson considers non-calculative trust in the context of "individual psychology" (cf. section 2.1.1). People involved in such a relationship justify their trusting as "the decent thing to do rather than because it was good for business." He is interested in accounting for "human behaviour" showing that individuals ultimately act "as if they were [Friedmanian] rational calculators." Even if agents are motivated by non-calculative mental states, what their behaviour in the end amounts to and how this ultimate outcome is to be analysed is what matters.

Yet, even if we were to accept the ultimate-proximate distinction, how precisely is calculativeness not to be "permitted" in "personal" trust? We might think that the application of calculativeness does not deliver accurate predictions of the ultimate behaviour involved in proximate trusting relations. If this was Williamson's position – if calculativeness was not "descript-

⁵⁹ Craswell (1993, p. 494). On the same page, Craswell names such trust as a "cognitive 'leap'", i.e. a non-calculative optimistic decision inherent to A's proximate assessment of B (cf. section 3.1).

⁶⁰ Craswell (1993, p. 494). Cf. note 10.

⁶¹ Note at this point, that one cost of accepting this distinction is that we could not differentiate between a sexist employer who merely behaves *as if* he was not a misogynist (due to awareness of social norms, e.g.) and a truly trustworthy person, as both behave the same way (cf. section 3.1 and Potter 2002, p. 5).

⁶² With regard to commercial relationships, Williamson (1996) calls TCE at multiple occasions an "empirical success story" (e.g. pp. 20, 27, 374). For a critical discussion of TCE's causal explanatoriness with regard to

ively accurate" with regard to trust – then his "discussion of the counterproductive effects that calculativeness can have when adopted by the participants to a personal relationship becomes largely irrelevant" (Craswell 1993, p. 500). If a theory does not predict well, but prediction is what is of interest, why do we need an account of how this theory influences the attitude of the people involved? Craswel's answer to this is that the difference in predictive strength of calculativeness between commercial and personal relations justifies calculativeness in the former and non-calculativeness in the latter cases. However, if those accounts are supposed to be general and non-arbitrary, then a selective application of accounts appears ad hoc: one cannot cherry-pick theories and change the definitional grounds situationally (cf. section 6). Calculativeness applies either pervasively (including the calculative assessment of its limits) or it does not.

In either case, "certain relationships ought not to be thought of in calculative terms" because a "calculative attitude" can at times impair an efficient outcome (ibid., p. 498). But, to whom does this apply? For sure, it counts for those individuals who are having a relationship of trust among themselves. However, this "does not show that there would be anything wrong with an outside analyst modeling those actors' behavior 'as if' they had calculated each move. To counsel against an outside analyst modeling personal behavior in calculative terms, we must fall back on the Radin-style spillover argument" (ibid., p. 499). This quote refers to Radin's (1987) account of commodification, i.e. the transformation of a good into a priceable commodity alienable on a market. And this can become a dysfunctional outcome of excessive calculativeness too: "a similar spillover effect could arise independently of whether these [commodified] goods were allowed to be bought and sold, if enough economists persisted in *discussing* peoples' preferences for [commodified goods as] babies or body parts in calculative terms" (Craswell 1993, p. 499). Although Craswell contests the extent of such spill-over effects – mainly because no coherent theory thereof is available – we might ask how intuitive it is in the present context.

What I want to argue here, is that the complete absence of spill-over effects is unlikely and self-undermining. If we agree, with Williamson, that spill-over effects can occur due to a causal interaction between individuals – e.g. a manager assesses the efficiency of a worker by means of "piecemeal" calculativeness and thereby provokes a more perfunctory performance of the latter – then it follows that individuals are susceptible and influenced by how other people see, describe, and potentially intervene in certain relations. It is arbitrary to exclude analysts or economists of that influencing group – if anything, we are more likely to listen to their analysis and implicit counsel to the extent that they are considered experts on those issues. Their mode of analysis shows us how to see the truth of the world we live in and how to adapt our behaviour and attitudes accordingly. This is the only consistent and not self-undermining aspiration any serious academic theorist should pursue – at least, it is Williamson's motivation.

But economists' status as experts might be contested, e.g. in matters of family, love, or trust. And yet will their calculative conclusions and implicit advice plausibly provoke opposition on behalf of those defending a non-calculative point of view. In any case, there is a causal interaction and influence between the analyst and those people living in non-calculative relationships of trust. Inefficient spill-over effects need not to follow necessarily as agents can still use judgement in discriminating "atmospheres" or all reason in calculative terms only. Indeed, had Williamson not provided any account of proximate "personal" trust, had he negated the existence of potential spill-over effects, and were he to stay with a purely prescriptive neoclassical account,

trust, i.e. not necessarily commercial relations, cf. Bromiley & Harris (2006, pp. 137 – 139).

then all the previous considerations would be superfluous. However, it would come at the cost of lower realisticness, intuitiveness, and compatibility with common sense – a cost Williamson tries to circumvent while maintaining the advantages of a pervasive calculative approach. Hence, if consequent spill-over effects exist, then they are caused by mutual influence between agents. And they are plausible and likely because, in the words of Merton (1936, p. 902), we do not live in "in a psychological or social vacuum" and all effects of our actions "will ramify into other spheres of value and interest." Yet, Williamson is unsuccessful in his attempt to reconcile a pervasive calculativeness with higher realisticness, as I will argue in the following.

There is an illustrative parallel between my point and a specific account in virtue ethics: Driver (1989) argues that certain virtues can only be lived consistently if the virtuous person is genuinely unconscious and ignorant about the virtue in question. The paradigmatic virtue, that she discusses, is modesty which "involves a lack of knowledge regarding self-worth. In general, when one asserts p, one is suggesting that one knows, or at least believes, p. In uttering (1) ['I am modest'], I imply a realization of my lack of knowledge with regard to modesty, making it no lack of knowledge. It is self-defeating to utter (1). ... (1) can be true, but I cannot believe it to be true or utter the sentence sensibly. I can be modest, but I cannot know it' (Driver 1989, p. 376). Modesty, in her account, corresponds to "the epistemic defect of not knowing one's own worth" (ibid., p. 374). The mere understatement of one's worth is insufficient. A genuinely modest person needs to have the honest and upright belief that bragging with one's qualities would be unjustified. Modesty is to genuinely and convincingly under-estimate one's worth.

A truly modest person (and not a person merely behaving so) is not susceptible to arguments proving the actual nature of her attitude, namely, that she is underestimating her own worth. She might even – more or less violently – reject arguments that go against her firm beliefs and convictions with regard to her nature. If this was not the case, we would not speak of a genuine case of modesty. Suppose a person was unaware of her own worth and importance. Upon telling her this fact she would get an inflated view of herself due to her proneness to deceit. Such a person would not be called genuinely modest although she satisfied Driver's criteria for bearing a virtue of ignorance. Modesty is thus a fragile attitude highly sensitive of contextual variations and the specific combination with other individual character traits. My point here is that the same counts for trust – independently of whether it is considered a virtue or not.

It is quite probably in such a sense that Williamson would qualify the statement "I trust calculatively" as a "contradiction in terms". Suppose an inherently non-calculative trusting person was told that her behaviour is ultimately calculative – i.e. different from how she perceives and lives the relation in question. Consequently, she might either not be susceptible to this argument or even reject it outright. If the non-calculative nature of Williamson's "very special relationships" is genuine – i.e. trusting people truly believe that their relationships are not calculative – then the individuals involved in trusting relations will not allow for calculative arguments. And this counts for all of us, as we all live in non-calculative relationships by Williamson's standard.

Williamson's claim for ultimately pervasive calculativeness, even in trusting relationships, would then fail Baier's (1986) "moral test" for morally decent trust.⁶³ If a party came to know

⁶³ Recall, trust is morally not corrupt and trustworthiness not suspect if "mutual reliance can be accompanied by mutual knowledge of the conditions for that reliance" (Baier 1986, p. 259).

that only calculative reasons are "what the other party is relying on for the continuance of the relationship", dismissing or ignoring the need for internal beliefs of good-will, then such knowledge would "itself destabilize the relationship" (Baier 1986, p. 255). I agree that calculativeness is not as morally objectionable as the cases Baier discusses, e.g. reliance on one's gullibility, fear of revenge or violence. However, considerations as the present do matter to the extent that calculativeness leads to a "treatment of individuals as instruments" and "excesses of instrumentalism" which need to be checked and avoided (Williamson 1985, p. 405). If "certain relationships ought not to be *thought of* in calculative terms" (Craswell 1993, p. 498, my emphasis) and if effects of spill-over exist, then the pervasiveness of calculativeness cannot be argued for.

However, it would stretch the point to believe that we have to ban speaking of the calculativeness of trust. After all, it could be the ultimate truth, just as a genuinely modest person underestimates her own true worth. There is a prima facie epistemological appeal to the argument that certain relationships are more efficient and thus calculative if they are not thought of in calculative terms. But independently of whether this calculativeness of trust can ultimately be assessed at all – and I will argue in sections 7.2 and 8.1 that it cannot – this sort of analysis is not without cost. It is not perceived and appreciated as explanatory but rather as self-defeating, confusing, and irritating by those it should serve in the first place. And these are the people involved in trading as well as personal relations – eventually, all of us. The trusting husband – upon being told that his attitude towards his wife is ultimately calculative – would either pass over that piece of information, give it no relevance, or even negate it outright. He would behave analogously to a modest person who is informed that she is worth more than she pretends to be. And this matters, again, to the extent that Williamson conceives his TCE account to be more realistic than neoclassical theory – i.e. caring about descriptive mental stances, intuitiveness, and compatibility with common sense. Why else should he postulate bounded rationality, opportunism and transaction costs if his main point is merely that calculativeness is pervasive?

7.2 Trust as a pragmatic and active wager rather than an ex post rationalisation

For Williamson, the concept of trust is of no "analytical" value. Furthermore, "to ascribe trust (distrust) whenever complex deals go through (fail) – because expected net gains are presumed to be positive (negative) – is, without more, merely an ex post rationalization" (Williamson 1993a, pp. 501 – 502). Assume we had a rational concept of trust with a higher explanatory power than an assessment in terms of risk-taking. To refer to trust after the fact would remain an ad hoc exercise in as much as there were no prior coherent microanalytical foundations that allow to account for the results, according to Williamson. And yet, trust seems to be an attitude that can apply independently of its concrete outcome. Moreover, the two seem separate in time: one takes the decision (not) to trust on a proximate level, i.e. before the success of that decision can be assessed. But Williamson refers to the ultimate outcome-level when he argues for the pervasiveness of calculativeness. Isn't his argument an exercise in ex post rationalising too?

I will argue that it is. Before doing so, let us first elaborate on why Williamson's account is not so different from those he attacks. Williamson contends "that conflating trust and calculated risk frequently leads not to clarification but to obfuscation, as with James Coleman's ex post interpretations of good outcomes as ones of trust and bad outcomes as misplaced trust" (Williamson 2012, p. 41). In fact, what Williamson does in his discussion of the examples of Coleman (W93, pp. 464 - 466, 469 - 475) is to interpret good outcomes of "trust" as ones due to calculated

lative choices. I contend that for one and the same example, if they had turned out bad and the trust thus misplaced, Williamson would have found evidence to argue in favour of the non-calculativeness of the decision. After all, the central aspect to trust is strategic uncertainty: on what evidence should we rely for assigning probabilities to possible states? Trust is a tricky issue because it depends on selecting the right evidence to justify a risky decision – given that there is sufficient evidence at all. Often there is not or its gathering is too costly, and in these situations we tend to trust. The analyst, in any case, cannot be expected to be omniscient either – she or he is boundedly rational (and arguably more farsighted) just as the studied subjects.

Boundedly rational individuals cannot fully process all the information available. They can become wiser after the fact, once that they have realised what evidence they should have relied on. Now, if non-calculativeness in trust applies to "internal mental states" of an individual, why is it useful to raise external and ultimate issues of ex post rationalisation? It remains unclear how the present discussion provides us with a helpful account of the decisions taken on the basis of trust. Indeed, the main motivation to speak of ex post rationalisation at all appears to bring back the ultimate level of analysis with regard to a phenomenon where this level is not central. Assessing whether this is a rhetorical strategy of Williamson in order to save the prescriptive nature of economic reasoning even in the non-calculative sphere is left to the reader.

But, what could non-calculative trust be good for in theory-making apart from the fact that we "feel" it to be this way? According to Gambetta (1988), cooperation can emerge and spread if at least one, potentially "irrational", "random signal" of cooperation is interpreted as an act of trust and "cognitive leap" encouraging its reciprocation. Gambetta perceives trust as a byproduct of cooperation, ⁶⁴ i.e. where cooperation and thus good institutions thrive, trust will follow. Nevertheless, he cedes trust a higher importance than Williamson in bringing about desirable and "calculative" cooperation: "under certain conditions and even in the absence of trust ... a basic predisposition *to trust* can be perceived and adopted as a rational pursuit even by moderately forward-looking egoists. We learn that, tentatively and conditionally, we can trust trust and distrust distrust, that it can be rewarding to behave *as if* we trusted even in unpromising situations" (Gambetta 1988, p. 228). Although trust is a proximate by-product of ultimate cooperative evolution, it can be a good tool in bringing about cooperation in the first place. ⁶⁵

On this basis, as Gambetta continues, trust can be seen as an active choice to rationalise certain situations ex ante.⁶⁶ Two considerations speak in favour of a trusting strategy à la Gambetta. In this strategy, one has "to choose deliberately a testing value of p [i.e. a subjective probability] which is both high enough for us to engage in tentative action, and small enough to set the risk and scale of possible disappointment acceptably low" (ibid., p. 234). First, no alternative exists – except for maintaining the status quo – to find out whether the trust was warranted and the cooperation could have been achieved.⁶⁷ Second, contrary to Williamson's assumption

⁶⁴ Cf. Gambetta (1988, p. 225, my emphasis): "Cooperation could be triggered *not by trust*, but simply by a set of fortunate practises, random at first, and then selectively retained."

⁶⁵ Cf. McCloskey (2006, p. 432): "Admittedly, such a mechanical thing [as the market working through calculation, interest, and exchanges] could not 'generate' trust. Without some love or solidarity, like a starter in sourdough bread, no one would trust [or cooperate with] anybody."

⁶⁶ Cf. Gambetta (1988, p. 229) about how trust becomes more than a by-product: "[e]volution has bestowed upon us the mixed blessing of being able to generate intentionally the *as if* behaviour. Knowing this, we can hardly avoid the responsibility of considering trust a choice rather than a fortunate by-product of evolution."

⁶⁷ Ibid. (p. 235): "Being wrong is an inevitable part of the wager, of the learning process strung between success

about bounded rationality and trust, the latter is not scarce. It is a "capital" that is not depleted but enhanced and strengthened through its use – to the contrary: "trust is depleted through *not* being used" (ibid.). Trust needs thus to be cultivated rather than calculated.

It is evident that such reasoning is pragmatic and "end-directed" rather than epistemic or "truth-directed" (cf. section 3.1). It is inspired by Pascal's wager where one either believes in the existence of God or one does not.⁶⁸ The central aspect resides in the fact that the wager does not know any third option – to abstain from judgement, to be agnostic, boils down to not believing in God. And the same holds for trust in Gambetta's reasoning. If one abstains from both trusting or distrusting, one might be neutral, the consequences of a middle position are the same as if one distrusted. To benefit from the advantages of trust, one needs actively to take the wager: had the husband no opinion of the faithfulness of his wife, he might not receive the benefits of an actively trusting attitude. The slightest negative evidence might shake his beliefs and thus the stability, reliability and loyalty within the relation.

In the same pragmatic vein might trusting be the better option, because of the adverse consequences of its opposite, distrust. Whereas trust is "predicated ... on the lack of *contrary* evidence" (ibid.), distrust is based on the presence of one piece of evidence confirming the distrust. The absolute warrant for trust can never be provided. But it can be proved wrong by one single piece of evidence – the opposite holds for distrust: it is justified with the observation of one instance of untrustworthy behaviour. Distrust has thus the "capacity to be *self-fulfilling*, to generate a reality consistent with itself" (ibid.). There is an asymmetry between distrust and trust. 69 Note that this argument only holds if the absence of trust involves distrust and vice-versa – i.e. with regard to personal relationships but not necessarily more generally (cf. note 20).

Now, Gambetta's wager on trust presupposes that trust can be pursued at will. But, according to our discussion in section 3.2, wanting to trust is not enough. A needs reasons to believe in the trustworthiness of B. Gambetta is quite honest about what provides these reasons: "self-delusion" (ibid., p. 232) – A has to behave *as if* she trusted. We can make us believe and create the reasons needed to justify and rationalise our beliefs. However, to what extent is this pragmatic "as if' different from Williamson's instrumentalist⁷⁰ credo that we should analyse behaviour *as if* it was calculative? Their differences notwithstanding, both are based on a selective neglect of empirical facts and presuppose thus some level of self-deceit and idealisation. In the first, we need a pre-disposition to trust in order to take the wager despite missing positive evidence to support such an attitude. In the second, we ultimately disregard that humans are only imperfect calculating machines. Gambetta opts for the direct and open usage of a strategy of self-delusion to achieve the benefits of cooperation. Williamson, in turn, seems at first to hedge his approach

and disappointment, where only if we are prepared to endure the latter can we hope to enjoy the former."

⁶⁸ Cf. the original: "Oui, mais il faut parier. Cela n'est pas volontaire, vous êtes embarqués. ... Pesons le gain et la perte en prenant croix que Dieu est. Estimons ces deux cas: si vous gagnez vous gagnez tout, et si vous perdez vous ne perdez rien: gagez donc qu'il est sans hésiter. Cela est admirable" (Pascal 1668, p 249).

⁶⁹ E.g. compared to trust, distrust spills over more easily from one agency or domain to another (i.e. local to national politicians – cf. Hardin 2006, p. 18). Moreover, to distrust (defect) is "easier" in a prisoner's dilemma setting than to trust (cooperate) as its evidential basis is less demanding and implying less risk (ibid., p. 23).

⁷⁰ Instrumentalism implies that a theory has to explain or predict rather than to describe the world. Williamson seems to understand his account in those terms, cf. Williamson (1985, pp. 390 – 392, 405). In this orientation, it follows Friedman's (1953) focus on predictive power rather than descriptive realisticness. Although Williamson calls TCE an "empirical success story", this has been questioned with regard to trust (cf. note 62).

against spill-over effects – i.e. the economists' self-delusion that non-economists should behave and think as if they were economists – while allowing calculativeness through the backdoor. On principled grounds, both accounts do not appear so different. Neither can avoid to ex post (ir-)rationalise its findings in view of the strategic uncertainty involved in trust.

Arguably, Williamson's "rational" strategy to consider situations of trust calculatively is still the better and safer choice. We should "seek evidence for their beliefs" and "increase (or decrease) p by gathering information about the characteristics and past record of others". We should work against information asymmetry or uncertainty "by rationally enhancing our reputation for trustworthiness, pre-committing ourselves, and making promises" (ibid., p. 233). And yet, trust does not seem to be an issue of how to handle evidence — if it was, then trust would not constitute a genuine problem. The point is rather that "trust itself affects the evidence we are looking for" (ibid.). Indeed, due to the affective and emotional nature of trusting behaviour, our perception of evidence in situations of trust is selective and self-confirming (Jones 1996, cf. section 3.2). However, is Gambetta's wager on trust the better strategy then?

It is true that "[a]sking too little of trust is just as ill advised as asking to[o] much" (Gambetta 1993, p. 235). However, Gambetta has neglected the latter while concentrating too much on working against the former. Trust is as affective as distrust, and it is not without negative potential. Not only is distrust self-fulfilling, but so can be trust. Both imply particular tendencies to overestimate and overly focus on self-confirming evidence. The relevant question resides thus in providing A with guidelines and explanations for how to make constructive and limited use of self-delusion in deciding whether to trust B or not. If this is true, we should be more interested in accounting for the proximate or internal behaviour. There is a risk of focusing on the ultimate and external explanation only, as Williamson does – it is too easy to reconstruct the rational story after the fact (by picking and focusing on that evidence that has proven to be the relevant one). Yet, the uncertainty involved in trust seems indeed "inordinately difficult" to operationalise (Williamson 1985, p. 406). Given this, Williamson's calculative account might still be the best game in town due to missing viable alternatives (cf. section 8.2).

We can close this sub-section by concluding that Williamson himself is not safe from his own criticism of an ex-post rationalisation. As a matter of fact, I do not see how to exclude the "danger" of a rationalisation after the fact in accounts that focus on an external explanation and thus the eventual outcomes only. To put it bluntly, at the end of the day, we are always wiser. And this seems to be the crux with accounting for trust (be it calculative or personal): we do not have or we are not looking for sufficient evidence, possibilities of control, or safeguards to guarantee the successful satisfaction of a certain expectation in a relationship. This is why we refer to "trust" as some kind of substitute in the first place. Seen from this perspective, whether we rationalise trust ex post or ex ante does not add anything to the understanding of situations where we refer to trust. If this is true, then calculativeness of such trust relations as well as its pervasiveness cannot be accounted for completely in the first place.

⁷¹ E.g. with regard to the actual economic crisis, cf. Earle (2009). Cf., furthermore, Besley et al. (2009, p. 330) in their letter to the Queen where they account for why the crisis was not foreseen by economists: "[p]eople trusted the banks whose boards and senior executives were packed with globally recruited talent ... Nobody wanted to believe that their judgement could be faulty or that they were unable competently to scrutinise the risks in the organisations that they managed. A generation of bankers and financiers deceived themselves and those who thought that they were the pace-making engineers of advanced economies."

8. The limits of Williamson's pervasive calculativeness

In the present section, three remaining aspects of the present project will be addressed: first, Williamson's account of the unintended effects will be substantiated. I will argue that the underlying calculativeness of personal trust is implicitly of a different and weaker kind that his original maximising account. Section 8.2, in turn, asks to what extent W93's "calculative trust" – as the best available alternative – can be helpful as a practical guideline in situations of trust. However, it will be shown that in such cases ultimate and absolute absence of trust does not hold. The last sub-section spells out Williamson's main instrumentalist motivation in theory selection – simplicity. It elaborates on the limits of such an approach with regard to trust and how these limits stand in tension to other aspirations of Williamson.

8.1 How the limits of calculativeness are (not) "folded in at the design stage"

For Williamson, "[t]he practice of using 'trust' and 'risk' interchangeably should ... be discontinued" (W93, p. 486). The first term describes a non-calculative relationship, the latter a calculative one: "trust will hereafter be reserved for noncalculative personal relations" (ibid.). He concludes that "the word 'trust' would hereafter be used much more cautiously – at least among social scientists, if not more generally" (W93, p. 469). Economists should thus dispense with engaging in trust as an internal and proximate phenomenon. They should rather look at the external effects and ultimate consequences. What are the implications of his view on trust for the calculative approach as well as for the division of labour among academic disciplines?

However, recall that trust is important for calculativeness in order to indicate its limits. Seen from that perspective, "calculativeness opens the door to a deeper understanding of economic organization" because even its limits can *ultimately* be analysed in calculative terms. "Once the excesses to which calculativeness is given are displayed and understood, the distortions can be anticipated and can thereafter be folded in at the design stage" (W93, p. 454). Being aware of its "unintended effects", the economic approach is not "unable or unwilling to take into account all relevant regularities whatsoever." The "excesses" of a "naive application of calculativeness" are thus "often remediable." The economic approach can implement "the deeper lesson ... to design control systems with reference to all consequences – both those that are intended and those that were (originally) unanticipated" (W93, p. 460). Williamson's pervasive calculativeness is ultimately based on the ability to discern the limits of the calculative approach and to integrate these findings into its design stage. If we know where *not* to apply and use the calculative approach in order to assure a more efficient outcome, then we have a stronger and more complete account of calculativeness. So far goes the argument of Williamson.

However, in order to be able to "fold in" the findings of the "excesses" of calculativeness into the "design stage" of the approach itself, one needs an account of the unintended effects themselves. We need to be able to detect its dysfunctional consequences by means of an independent theory of how and when such effects come about. But Williamson has not provided such a theory. For a calculative analysis to be applicable one needs to be able to measure, meter, or calculate quantities in the first place. But functional separability does not need to involve separability in attitude (W93, p. 480). If a job is analysed calculatively and this job is susceptible to spill-over effects, then not the same job is contemplated anymore at the moment of assessing it calculatively – to assess the initial job in such terms would thus be impossible.

Obviously, we do not necessarily need to apply a separate analysis of all aspects of a job. The anterior aggregate output can be compared well with the overall output after metering the separable aspects of a job. If we observe a significantly lower efficiency afterwards, then spillover effects have taken place, ceteris paribus. Questions of causation notwithstanding – i.e. has the metering activity caused the loss of efficiency and not another (confounding) factor? – Williamson is still not providing a proper theory of dysfunctional and unintended effects. What do I mean by "theory" here? A theory provides a comprehensive body of knowledge, i.e. sufficient and necessary reasons which allow the categorisation and explanation of certain observations. However, Williamson's criterion of dysfunctional consequences is neither sufficient nor necessary: a calculative attitude might well imply an unobserved spill-over effect and a less efficient outcome might result without calculativeness causing it. Williamson's "theory" of the limits of calculativeness is, beyond exemplar illustration, not elaborate enough to argue for the ultimate pervasiveness of calculativeness. The criterion which W93 provides us for detecting counter-efficient consequences is too coarse to be able to integrate its findings effectively and efficiently into the design stage of the calculative approach – it is a harder exercise than Williamson wants us to believe.

It seems, furthermore, that calculativeness applies differently under normal (commercial) as compared to personal conditions, i.e. while abstaining from calculativeness due to dysfunctional consequences. In the former case, calculativeness corresponds to maximising; the latter seems closer to the idea of "satisficing" (cf. section 2.1 and note 18). Taking a calculative stance in personal contexts would imply a *less* efficient outcome compared to its absence. Staying with the *more* efficient does not imply going for the *most* efficient. Trust might be calculative, if it is calculative at all, in a non-maximising sense. Agents are thus only "satisficers" and not maximisers with regard to calculative assessment of the limits of calculativeness. However, if this is true, then they lack the necessary intentionality for Williamson's prescriptive and evolutionary account of rationality to apply (cf. section 2.1) – different and weaker standards apply with calculativeness as occurring supposedly in "personal" trust. This is a further illustration of the underdevelopment of Williamson's account of unintended consequences in W93.

Albeit Williamson would have needed to be transparent and explicit about such a second and weaker form of rationality underlying his account of the calculativeness of trust, it does not represent a necessary problem. Recall, that he opts for maximising behaviour not for its own sake but rather for instrumental reasons: it is easier to implement and descriptively more accurate compared to any alternative including satisficing (cf. section 2.1 and 8.3). If two approaches reach "the same outcome" and if one "is much easier to implement, then economists can be thought of analytical satisficers: they use a short-cut form of analysis ... [which] gets the job done" (Williamson 1993b, p. 123). Although Williamson uses this quote to argue for maximising over satisficing, the quote can hold the other way round too. Satisficing could be a viable option for him because it is easy (or easier) to implement and relatively accurate: apply a calculative approach and if, after treatment, a lower efficiency results then – ceteris paribus – dysfunctional effects obtain which have to be avoided. However, this reasoning can only apply if Williamson is a thorough instrumentalist and admits that non-calculative behaviour cannot ultimately be assessed as calculative in a maximising sense. This, in turn, would imply that he had to bite the bullet and accept a discontinuity in his account of intentional, farsighted, and evolutionary rationality – calculativeness in relations of trust would be of a merely satisficing nature.

Even if he was to admit this – and I have my doubts – then my argument against the pervasiveness of calculativeness would still apply with regard to his stronger maximising version.

And yet, Williamson is right in that trust is too user-friendly and over-charged with importance despite its missing analytical clarity. That does not mean that it is not a potentially important concept which has to be further developed and investigated, as Williamson argues and we shall see in the following section 8.2. However, we do better if we get rid of our preconception that trust must be defended from a calculative analysis. Williamson might be right with his approach after all: analyse trust first in purely calculative terms and look afterwards what is left to be explained by another and "better" account. However, even if no clear-cut concept of "trust" has been found yet, Williamson is not justified in concluding that calculativeness is pervasive. Moreover, neither has he provided a sufficient theory of unintended consequences nor admitted that calculativeness in trust, if it obtains, is of a satisficing nature only.

8.2 Calculativeness vs. trust – which one is without alternative?

For Williamson, trust is a tautology and therefore redundant – its occurrences boil ultimately down to a calculative matter. The concept of trust might be "on the trail of something more important", but there is a lack of promising, deeper accounts, such that he is "not sanguine" (Williamson 1993a, p. 502). Calculativeness remains thus the best available alternative theory. But what is the purpose of a theory? If it was about accounting for how agents *in reality* justify their (intendedly) non-calculative trust attitude, Williamson's pervasive calculativeness would be a poor candidate. But, Williamson's position is interpreted best as providing a prescriptive account of what such behaviour ultimately should amount to, independently of the internal stance the individuals involved. The question is, then: when is it rational to trust?

As rationality is determined as bounded yet farsighted utility maximisation, Williamson provides a reasonable answer: "trust, but verify" or economise on trust in transactions "while simultaneously safeguarding them against the hazards of opportunism" (W93, p. 459). To assess whether to engage in an exchange requires sufficient evidence for a prudential and "rational" decision – in any case, one needs to take safeguarding (contractual) precautions against a defaulting exchange partner. Indeed, in Williamson's (commercial) world there is no reason to trust anybody in the first place because all agents are assumed to be opportunistic and deceitful. That Williamson discusses personal (non-calculative) trust at all is remarkable. But, as one needs to be sceptical and cautious in such a world, the question of how "very special" and truly trusting relationships come about in the first place, becomes difficult to account for.

Recall, opportunism is a normative assumption (cf. section 2.2). In Williamson's account, we prepare for the worst about human agency: people are not only more or less dull (bounded rationality), they are deceitful too (opportunism). This does not imply that there are no non-opportunistic agents out there, but only that we do better in playing safe, stay very "prudent", and behave "risk-aversely". This is why Williamson distrusts trust or any attitude based on an optimistic assessment of one's fellows. This is not to say that Williamson is unaware of the value that arises from cooperation. But, instead of relying on an ungrounded, irreflective, or even

⁷² Cf. McCloskey (2006, pp. 431ff.), where she argues that the virtue associated with the economic approach, "prudence", can give only limited understanding – if any at all – of other virtues like "love", "family" or "trust". Indeed, those different virtues are interdependent and presuppose each another (cf. note 65).

"emotional" attitude such as trust, we can achieve the same benefits and advantages of mutual cooperation on the basis of a calculative, thought-through, and explicit device: legal safeguards.

And yet, "ironically", Williamson's reliance on safeguards itself presupposes trust in the judiciary system as well as the police forces in executing the court rulings – credible sanctions presuppose trustworthy legal institutions. Now, in order to avoid that non-calculative trust underlies the functioning of the legal system, Williamson could make reference to a social contract between those institutions and the individual, established and adapted by means of political participation rights. However, what are the safeguards for such a contract? This is not the place to enter a discourse about "who controls the controller". But we can state – as a matter of consistency – that judges, police agents, or any politicians need all to be assumed boundedly rational and opportunistic (just as theoreticians of the calculative approach). Williamson has not touched upon the role of those agents which are supposed guarantee the proper function of legal safeguards. Considered more deeply, thus, legal safeguards are not so intuitive as an outlet to to avoid trust. There are manyfold instances where exchanges take place without sufficient evidence or means to take precautions at all. Agents do and must rely on genuine trust at one point – without any trust, we would "not be able to get out of bed" in the morning.

Williamson's calculative approach might thus serve us very well in installing and updating safeguards in an ongoing and often long-established relationship of trust while checking on its pursuit-worthiness – and, indeed, such relations normally "pay off". However, such an approach is helpless in situations where trust and cooperation need to be restored and (re-)started in order to achieve a common goal⁷⁶: there is nothing to be safeguarded, monitored, or calculated when there is no trusting basis in the first place. There is no alternative to trust in order to overcome a status quo of such a type (cf. section 7.2). People often trust as a next best substitute to proper control or safeguarding. Indeed, trust can be seen as a manner on its own to save on transaction costs (cf. Zak & Knack, 2001), rather than a transaction cost itself. This does not make such trust per se a rationally more warranted or calculative concept though – it merely shows that in certain instances non-calculative trust leads to a more calculative outcome.

8.3 Williamson's theory: simple and general rather than detailed and deep

For Williamson, a theory needs to be "descriptively accurate" (W93, p. 485). In being clear-cut and neat it displays the "scientific virtue" of simplicity in accounting for human behaviour (also known as "Ockham's razor"). Simplicity prescribes to choose the theory involving least assumptions while having the same explanatory power as its alternatives.⁷⁷ Williamson's calcu-

⁷³ Cf. Zak & Knack (2001, p. 296, my emphasis): "[i]f trust is too low in a society, savings will be insuffcient to sustain positive output growth. Such a poverty trap is more likely *when institutions*— both formal and informal — *which punish cheaters are weak*." Williamson does not grant "trust" any major explanatory importance and thus rejects the high-trust low-trust characterisation. But, he is de facto free-riding on those concepts presupposing implicitly a high-trust context with reliable, functioning and perfectly trustworthy institutions.

⁷⁴ This lapse is quite probably connected to his minimalist understanding of power relations, cf. section 3.1.

⁷⁵ Luhmann (1979, p. 1). Cf. McLeod (2001, ch. 3): "[trust] could also be the very basis of society, insofar as trust in fellow citizens to honor social contracts makes those contracts possible."

⁷⁶ Cf. Pettit (1995, p. 324): "virtual self-regard may be of no use in explaining the emergence or continuation of any pattern of behaviour, it can be of great utility in explaining a third explanandum: the resilience of that pattern of behaviour under various shocks and disturbances."

⁷⁷ Cf. Khalil (2003, p. xx): "the trust-as-strategy explanation [à la Williamson] economizes on theory construction and, hence, following the Ockham's razor dictum, is a theoretical triumph." Cf. for that purpose William-

lative TCE application on trust is based on two assumptions, bounded rationality and opportunism, and represents a "parsimonious description" of reality. However, as such is calculativeness only "suitable for some purposes" (W93, p. 475). The embeddedness conditions and the respective "atmosphere" need to be taken into account by means of a complementary "discrete structural analysis". This qualification indicates that several aspects of simplicity in W93 need to be spelled out: how does simplification apply, what is its subject, and at what cost comes the choice of the most "parsimonious" theory.⁷⁸ Let us address these in turn.

Williamson's calculative approach is simpler because it allows to do altogether without – or with much less – reference to trust. For Craswell, W93 is more parsimonious because its explanation focuses on the ultimate level only while neglecting the proximate level explanation: "[i]ndividuals may believe that they and others are acting for noncalculative reasons, but if their actions always turn out to be those that a calculative person would take, then the calculative theory provides a more parsimonious account of their behavior, and the individuals' internal mental states can be disregarded" (Craswell 1993, p. 494). The simplification resides in the reduction of levels of explanation – to the extent that the calculative approach can account for all the findings on an ultimate level only (disregarding the proximate) it is the simpler solution.⁷⁹

However, Ockham's razor takes the number of assumptions and hypotheses, on which a theory is based, as a benchmark. It does not necessarily focus on a reduction of the levels of explanation. And Williamson's two hypotheses are rather complex in their details and specific conception: with regard to bounded rationality, we have seen that agents are assumed to be farsighted and intentionally rational (i.e. aware of the existence and pursuit-worthiness of an optimal calculative outcome). They are thus only relatively limited in their capacity to reason and as such hardly to be differentiated from hyper-rational agents of neoclassical theory. If Williamson is an instrumentalist about his choice of theory and if Ockham's razor concerns the simplicity of the assumptions (and not the levels of explanation), why is Williamson's bounded rationality account supposed to be more parsimonious than hyper-rationality?

This has probably to do with Williamson's aspiration to provide an account of "human nature as we know it" (Williamson, 1985, p. 44). He aims at providing a more realistic theory with a wider application and relevance. However, if Williamson's subject of simplicity is the number of levels of explanation only, then his more realistic proximate account is irrelevant. And this is the cost of the parsimony Williamson applies: his theory – notably its element of pervasive calculativeness – cannot and will not account for the proximate level despite the fact that this is the relevant level in providing guidelines of when one should trust. It is, furthermore, the aspect that differentiates his TCE approach from neoclassical theory (cf. section 2).

son (1993a, p. 502): "The lesson is that calculative relations should be described in an unambiguously calculative way. The benefits of a scientific vocabulary thus go beyond those of descriptive accuracy [footnote omitted] to include *analytical propensity*."

⁷⁸ This is inspired by Baker's (2010, ch. 1) guiding questions of simplicity's usage, definition, and justification.

⁷⁹ Simplicity goes along with "generality". To focus on calculativeness allows to summarise more observations under the umbrella of one theory, i.e. both the directly calculative (commercial relationships) as well as those which are indirectly so (trust). Note, however, that such an orientation goes at the expense of detail and "depth" (for a more detailed discussion of this analogy, cf. Marchionni & Vromen 2009).

9. The dilemma of pervasiveness

In this thesis, I have critically analysed Williamson's account of the limits of calculativeness. In doing so, I have focused on its alleged pervasiveness. It has not been my aim to argue against his account *per se*. The attempt has been to complement his discussion on the excesses of calculativeness with regard to its pervasiveness and render explicit underlying assumptions and consequences. This approach prompts the presentation of my findings and conclusions in the form of a dilemma: either calculativeness is pervasive (1), or it is not (2). The dilemma is presented in the following sub-section and, thereafter, I will argue more specifically for (2).

9.1 Pascalian conditions

Before presenting the dilemma itself, let me recapitulate why the present dilemma is of a genuine kind, i.e. both of its horns, (1) and (2), are mutually exclusive. Obviously, if we assume that calculativeness is pervasive with regard to the ultimate level whereas it is not on the proximate level, then the dilemma is a false one – i.e. one could accept both horns at a time. However, Williamson himself argues that those two levels are not independent: there is a necessary causal interference between the levels if we give the necessary credit to spill-over effects (cf. section 5.3). Now, Williamson could argue that spill-over effects notwithstanding, calculativeness necessarily sets in as an evolutionary selection mechanism. My stance on this position relies on Williamson's argument. But it is, in contrast to him, agnostic about the (evolutionary) pervasiveness of calculativeness. To take a calculative stance – ultimately or proximately – with regard to a inherently non-calculative relationships transforms and changes those very relationships. Hence, even if we manage to assess them calculatively, we might have rightful doubts whether we are still analysing the initial relationship – they literally escape or elude our rational consideration. We can never ultimately and justifiably argue in favour of its calculativeness beyond casual empirical observation of the fact that we *do* trust non-calculatively.

Recall, that absence of trust does not involve distrust (cf. note 20), abstaining from either is thus possible. However, the situation in the present dilemma is different if pervasive calculativeness underlies a Pascalian *either-or* condition (cf. section 7.2). Here, agnosticism does not warrant an abstaining position: trust is calculative or it is not—anything in between, any form of scepticism about its calculativeness, boils down to the second viewpoint. The affinities of my present dilemma with Pascal's wager are multiple. However, there are a couple of important qualifications to it. First, in contrast to my presentation of Pascal's wager in section 7.2 (i.e. in the context of Gambetta's pragmatic argument in favour of trust) is my present account not directly about the question of whether to trust or not. It is rather about whether to argue that even personal trust can be said to be pervasively calculative or not. Second, abstention of judgement in Gambetta's version of the wager boils down to distrust, in my version "agnosticism" about the pervasiveness calculativeness implies to endorse its non-pervasiveness. Note furthermore that such agnosticism cannot resolve an issue on an epistemological and calculative level. However, it can do so on pragmatic grounds — and this is the strategy that will allow me to argue for horn (2) in the following sub-section. But now, here is the dilemma and its implications:

(1) if calculativeness was pervasive, then...

... there would be no need for a non-calculative account of "personal" trust (cf. section 7.1). It would not fulfil any explanatory role on an ultimate level. However, to focus on the "external" explanation of situations of trust (while having a separate and independent proximate account) would not be problematic, if there was no causal interaction between the proximate and ultimate level of explanation. Yet, Williamson's own discussion of spill-over effects speaks against such an independence (cf. section 5.3).

... it would not be clear to what extent Williamson's agents are merely boundedly rational rather than hyper-rational, as argued in section 2.1.2. If Williamson pursues an instrumentalist approach and simplicity matters, why should a theoretician chose Williamson's more complex assumptions of bounded yet farsighted rationality and guileful opportunism rather than the neo-classical pendants of perfect rationality and full transparent information (cf. section 8.3)?

... and if Williamson still wanted to remedy the excesses of calculativeness, then he would need a comprehensive theory of calculativeness' "unintended effects" and "dysfunctional consequences". Without such a theory, he could not prove that a maximally efficient outcome obtains where we abstain from a calculative attitude. His discussion of such effects provides illustrative examples rather than a full-fledged autonomous theory (cf. section 5.3).

... the non-calculative personal relationships would need to be calculable in the first place, i.e. we would have to meter and quantify the relevant aspects of such relationships in a meaningful sense (cf. 4.2.1). Again, spill-over and interaction effects transform the measured relationships such that the assessment of the initial aspect is undermined (cf. section 5.2).

... Williamson could not account for the emergence of trust – particularly in view of his assumption of opportunism. Obviously, farsightedness could allow agents to spot opportunities in starting trusting relationships. But even if this was uncontroversial in itself (cf. second point in this list), it would disregard the strategic uncertainty involved. Moreover, it would insufficiently account for the relevant proximate level (e.g. recall comparison with Driver's "virtues of ignorance"). Moreover, an optimistic predisposition to trust rather than a prudential calculative attitude of distrust is needed to bring about trust in the first place (cf. sections 3.1 and 7.2).

(2) If calculativeness was not pervasive, then ...

... in turn, the argument of spill-over would be given credit – there are certain situations in which calculativeness cannot be meaningfully applied. However, this does not imply that calculativeness is necessarily absent in such cases (cf. section 7.1). But to infer an ultimate calculative outcome of trusting behaviour is impossible in view of spill-over effects which originate from genuinely non-calculative proximate attitudes. If we want to stay agnostic, i.e. not affirm the ultimate calculativeness of such behaviour and thus – in a Pascalian framework – endorse its ultimate non-calculativeness, we have to drop the pervasiveness assumption (cf. section 7.2).

... one could truly recognise the limits of calculativeness and accept or even establish a genuine account of spill-over effects. There would be no urge to introduce calculativeness through the backdoor. Moreover, to drop the aspiration of perceiving or imposing calculativeness all over the place allows economists to have a more convincing efficiency account (cf. sections 6 and 7.1). They may accept that there are certain relationships which we simply do not perceive, experience, and live as calculative, efficient, or utility-maximising. Moreover, one can acknowledge that there are occasions where we rely – quite successfully – on trust without sufficient evidence for a calculative assessment or no safeguard available (cf. section 8.2).

... there would be no urge to interpret the emergence of cooperation in general, or trust more specifically, in necessary calculative terms. One could accept that in certain occasions it emerges because A "trusted" B without any calculative warrant, and B takes it up as a signal allowing for reciprocation (cf. section 7.2 and Gambetta 1988). W93's calculativeness can still apply with regard to the governance of established and ongoing (non-personal) relationships.

... this would not imply that it is harder to argue for the relevancy of calculativeness in the commercial sphere – to the contrary, it might be easier. By letting go the definition of economics on the basis of its calculative approach only (and its inherent pervasive application), one can focus on its natural subject matter, which is commerce (cf. section 6). As a consequence, the calculative approach can be applied to those occasions – e.g. commerce – where they are intuitively explanatory. There would be no obsession to (re-)interpret all relationships in such terms.

... then the centrality of descriptive proximate level considerations in trusting situations could be acknowledged rather than neglected or overridden. As strategic uncertainty underlies any situation involving genuine trust, internal mental stances and beliefs matter in providing realistic practical guideline about when one *should* trust. As a consequence, less tension with adherents of non-calculativeness in trust would be provoked (cf. section 6).

9.2 Why little is lost and much gained by not insisting on pervasiveness

If Williamson was brought to the scratch and asked to take a stance with regard to the dilemma – given that he accepted it in the first place – I assume he would choose (1). 80 As a consequence, more arguments are needed which show that little is "lost", while much can be gained by endorsing (2). I will do so by addressing three undesirable consequences of accepting (1): a) it works against a higher acceptance and integration of economics in other social sciences, thus against a real labour division among disciplines; b) it is not bridging the prescriptive aspect with a realistic description of behaviour; and c) it provides no or little difference of Williamson's assumptions compared to neoclassical economics' hyper-rationality.

With regard to a), research on trust is recognised to be a *multi*-disciplinary issue. As such, different approaches have been applied to investigate phenomena of trust reaching different conclusions. For it to become a fruitful *inter*-disciplinary endeavour, an attentive, careful, and complementing application of one's approach is needed – and this is what Williamson does in discussing issues of spill-over. Williamson accepts that there are limits to the calculative approach and he opts for the discontinuation of dealing with personal trust in the social sciences

⁸⁰ This is due to quotes as this: "much of the success of economics in relation to the other social sciences occurs because calculativeness is presumed to be present in nontrivial degree" (Williamson 1985, p. 391).

(leaving it to psychologists). However, to the extent that he does so, it is not necessary to insist on the ultimate calculativeness of trust. In as much as TCE took off and has been carried on as an interdisciplinary endeavour itself – lying between economics, law, and organisational theory – a more charitable and indeed prudential approach and reading of "contiguous" sciences is expected, notably "as the phenomena under study cross disciplinary lines." And this applies to trust where several disciplines are concerned – amongst others, psychology.

With regard to b), Williamson would do better by admitting that the calculative approach has genuine limits. This allows for a proper application of the calculative approach where it is supposed to be most pervasive and intuitive, i.e. the world of commerce. However, as he argues for the pervasiveness of calculativeness beyond this point, he puts a superfluous wedge between the descriptive and prescriptive aspect of his TCE account. We have seen in section 2 that the only way to make sense of Williamson's pervasive calculativeness, in the context of "nearly non-calculative" trust, is to aim at an ultimate explanation and provide a purely prescriptive reading. A prescriptive reading which provokes counter-reaction because it goes against the "atmosphere" and core aspect of trust: A's optimistic assessment of B's intention. Moreover, actually, we try to account for the proximate level explanation of trust is what and focus thus on the ex ante conditions. And ex post rationalisation exercises are not helpful or even arbitrary in providing a practical proximate guideline about when to trust. We should thus not be taken by Williamson's ultimate level explanation justifying pervasive calculativeness.

At the end of the day, Williamson's account provides a good example of the limits of his kind of project: to provide a more "realistic" account of human agency while trying to apply prescriptive calculativeness in the tradition of neoclassical economics (i.e. pervasively). But at a certain point and with regard to certain relationships, we simply do not act calculatively. However, Williamson seems to insist on the ultimate calculativeness of our actions. If he was maintain this position and to pursue an instrumentalist strategy, then the question is to what extent his "bounded rationality" assumption is different from hyper-rationality (this is point c). For this is what his account would *ultimately* amount to. In turn, he could defend a substantive account of both his TCE assumptions as well as his postulate of spill-over effects. In such a case, he would have to stay agnostic about whether those non-calculative relationships, which are prone to spill-over and interaction effects, are ultimately maximally efficient in the absence of a calculative attitude. Agnosticism about the purported pervasiveness, under Pascalian conditions, does not warrant to state the presence of an eventually calculative outcome.

All these considerations, however, do not imply that calculativeness is not a useful tool. It only needs to be employed intelligently while truly recognising its limits. This applies especially in view of the absence of better alternative concepts of operationalising and defining trust: given the heterogeneity in the current literature, a calculative approach might be the "least worst" option to analyse trust. But this does not imply and warrant that one can interpret even the detected limits of calculativeness in calculative terms again. Agnosticism with regard to the ultimate pervasiveness of calculativeness is not only the more honest choice, it is also more consistent and convincing.

⁸¹ Williamson (2009, p. 459). But it is evident,that "[b]eing interdisciplinary" has to be traded off with "[b]eing disciplined", i.e. "to take your core discipline [economics] seriously and work at it on its own terms" (ibid.).

10. Conclusion

Most of what has been said in this thesis appears rather critical of Williamson position. However, the present discussion has been possible only because Williamson has not avoided to confront complex issues beyond economists' "comfort zone". Had he not taken up the existence of inherently non-calculative relationships – and there was no unavoidable need to do so – there would have been much less to engage with. His endeavour has to be welcomed and earns merit because it applies within economics. And economics is a rather specialised discipline with a tendency to either neglect certain – mostly non-calculative – phenomena (of which trust seems to be one) or analyse it bluntly with one's own established tools of analysis. The economic approach is often not sufficiently nuanced with regard to ongoing discussions, and the due attention is not paid to what has been done previously by other disciplines.

In contrast, Williamson takes up the elusive notion of trust and distinguishes a risk-like "calculative trust" from non-calculative "personal trust". In his attempt to bridge those accounts he claimed that calculativeness is "pervasive" – a claim I have argued against. I have presented a series of counter-arguments, which arise from within W93 and its premises, and summarised them in the form of a dilemma. Am I thereby arguing that no bridging account possibly exists, thus inherently recognising Williamson's dichotomy? Not necessarily. Nor does arguing against the pervasiveness of calculativeness imply to endorse pervasive non-calculativeness. And here resides the major limitation of my account. The burden of proof of the present thesis, were it to claim pervasive non-calculativeness, cannot be inverted: in order to substantively criticise the calculative approach to trust and the calculative limits of calculativeness, it is not sufficient to show where calculativeness does not apply – one needs to present an alternative theory which accounts for the situations in question *better*, i.e. more generally and parsimoniously.

Going more into depth, we might ask why argue against the pervasiveness of calculative utility maximising in the first place. A wide-spread motivation for doing so is some sort of gut-feeling that calculativeness does not represent the way things work and how we are. However, having a gut-feeling about a certain conception of trust is not an argument and, for sure, it is no theory. To pursue relationships on a non-calculative basis might still be a more successful strategy in certain contexts. But we cannot assess them beyond situational evidence without providing a proper theory, i.e. a more general and parsimonious set of conditions under which observations can be categorised and analysed. The only reasons brought forward in favour of trust and against pervasive calculativeness are of ultimately pragmatic and not of epistemic nature – the evidence being insufficient we have to wager on trust. To the extent that an agent prefers acting on a epistemologically justified warrant, Williamson's prudential and calculative advise is the best game in town. But calculativeness is not without limitations. And the present project is a contribution to strengthen and improve Williamson's account on this level.

Interestingly, gut-feelings of the above sort could be interpreted just as trust is analysed by Williamson. To defend and emphasise the importance of trust as an "emotional" rather than "rational" concept might have originated from a concern that a sense of "we" is destroyed. To pro-

⁸² Cf. Williamson (1975, p. 107): "outside lawyers or academic economists ... anxious that the worst of all possible consequences consistent with the terms of the agreement will obtain, are unsettled by informal assurances that 'everything will work out.' These differences between outsiders and businessmen partly reflect a common tendency among specialists to interpret issues in terms that complement their particular expertise."

tect trust from a "calculative" analysis is to prevent a treatment of humans as mere instruments – calculativeness can have a "dehumanising" face (cf. section 5.3). Being based on a negative and pessimistic vision of human nature, Williamson's TCE account cannot provide any basis on which trust could somehow be grounded – or would you trust guileful *homo oeconomicus*? Intuitively, we negate such a self-perception or perceive it even as an insult. It is not realistic, we say, as we are social, altruistic, loving and loved beings too. And we do trust sometimes for the sake of trusting, without trading off probabilities, potential benefits and losses—in addition, to think of trust in this way is what we expect and trust others to do. To speculate, we might behave and believe so out of a tendency (conscious or not) to protect non-selfish and non-calculative aspects from the temptation of taking the calculative and opportunistic selfish, collectively undesirable strategy. Emotional reactions towards "calculative" approaches to trust might thus represent a subconscious cultural safeguard, to use Williamson's terminology, against falling into a self-enforcing negative and inefficient mode.

Williamson has shown a lot of tact and subtlety in his way of handling the phenomenon of trust. He has dealt with important matters without losing his sense and thinking as an economist. In fact, his own account is the best example of how to deal with threats of spill-over: nuance is important because *the form* of making one's point matters. Although his account ultimately promotes the pervasiveness of calculativeness – the leitmotiv of mainstream economics – he does take up the controversial and discomforting issue of trust. Admitting that they have to be inherently non-calculative, Williamson allows for a framework – indeed, an "atmosphere" – in which substantial and charitable discussion is possible.

For sure, trust remains a "fragile plant which may not endure inspection of its roots" (Baier 1986, p. 260). It is not for nothing that we apparently need to invoke ambiguous and indeterminate concepts such as "as if", "self-delusion", or "leap of faith" to account for its genuine form. But this is a two-way road: under such premises, we can make us also believe that a calculative consideration does not need to undermine the foundations of a trusting relationship – explicitness about the true ultimate nature of the relation might even strengthen it. After all, has evolution "bestowed upon us the mixed blessing of being able to generate intentionally the *as if* behaviour" (Gambetta, 1988, p. 229). At the end of the day, we are the masters of our own expectations. Or, at least, this is what we should aim to become.

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