ENTREPRENEURS’ CHARACTER AND COMPETENCE: HOW ANGEL INVESTORS FORM INITIAL IMPRESSIONS OF TRUSTWORTHINESS

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Abstract

In coming to a rapid decision of whether or not to invest, early stage investors have been purported to rely on judgments of the attractiveness of industry settings, the breakthrough potential of new innovations, and the quality of the entrepreneur and entrepreneurial teams. Yet research has shown their choices to be internally inconsistent with even their own decision rules. How is it, then, that these investors come to form a sufficiently stable impression to take action? We focus on how the assessment of the lead entrepreneur begins to materialize from initial information and signals about the entrepreneur’s character and competence. Investing in early stage companies is a risky proposition that requires confidence and trust in the entrepreneur. The perceived trustworthiness of the entrepreneur is therefore a critically important determinant of the ultimate investment decision. Our premise is that this process begins with scant and often contradictory signals about character and competence. We investigate how early signals influence the decision to trust and to invest.

Introduction

High potential or high growth-seeking new ventures face severe difficulties in obtaining adequate financing to effectively launch their businesses. Without a trading history (which might satisfy banks and other sources of debt) and lacking sufficient resources to sustain activities necessary to promote and develop cutting edge products that would provide an entry wedge into existing markets, such ventures are forced to seek some form of equity funding to fuel their sometimes taxing “burn rates.” Because early stage investing is inherently risky and requires diligent attention from investors, venture capital firms have increasingly turned toward investing in larger, safer late stage ventures. A rising tide of private investors (a.k.a. business “angels”) has provided some of the needed funding. Evidence suggests that angels attend to very similar factors to those used by professional venture capital firms when they make their decisions to invest (van Osnabrugge, 2000). Yet, despite a long history and rather strongly embedded norms of critical factors in the venture capital industry, even professional venture capitalists have been shown to be inconsistent in how they reach judgments of the attractiveness of alternative investment opportunities (Shepherd and Zacharakis, 1999; Zacharakis and Meyer, 1998). If investors are inconsistent in their application of their own decision rules, how do they begin to form judgments in these highly opaque and uncertain environments?

Advances in communication, technology, travel costs, governance structures and financing instruments have created enormous opportunities for rapid and vast wealth creation. Realizing these
opportunities requires appropriate allocation of risk bearing, talent, and cooperation. Yet these advances have not obviated the need for ‘leaps of faith’ to be taken by cooperating parties as the full nature of the competence and goodwill of all players is not fully known among potential exchange partners (Cable & Shane, 1997). Our study is aimed at increasing the understanding of the formation of trustworthiness judgments and is a departure from the standard approach of investigating what criteria early stage investors use to pick new ventures. Based on extensive prior studies, we begin from the premises that early stage investors are deeply concerned with the attractiveness of the targeted industry, the breakthrough potential of new innovations, and the quality of the entrepreneur and his/her entrepreneurial team (MacMillan, Siegel and Subba Narasimha, 1985; Sudek2006; Tyebjee and Bruno, 1984). However, we focus on the formation of judgments of the quality of the lead entrepreneur. Our central interest is in discovering how angel investors use scant, and often contradictory, signals to reach judgments of the character and the competence of the lead entrepreneur. Our perspective that the quality of the lead entrepreneur is a critical element in the decision to invest in new, high potential ventures is not a new one (MacMillan et al., 1985; Sapienza, 1989). Indeed, the subject of many studies in entrepreneurship has been about the unique talents and skills necessary to foster and build a new high potential venture (Fried and Hisrich, 1994; Smart, 1999). And, although rather scant attention has been given to investigating the important role of character (see Harrison, Dibben and Mason, 1997 for an exception), it is nevertheless well understood by practitioners and acknowledged in the literature that trust is an essential starting point for the investor-entrepreneur relationship (Cable and Shane, 1997; Sapienza and Korsgaard, 1996; Tyebjee and Bruno, 1984). What we seek to understand in this study is manifold: are investors’ judgments of trustworthiness affected significantly by indirect, weak, or inconsistent signals of competence and character? Are they equally or differently affected by each type of signal? Do signals of competence influence attributions of character, and vice versa?

In order to study these issues we conducted a field experiment with students in a major Midwestern university. We ran the experiments in a multitude of small sessions and ended with complete answers from 413 subjects. Subjects were randomly assigned to one of nine conditions with mixed (positive and negative) signals of competence and goodwill or integrity trustworthiness. Subjects were asked to play the role of a private investor who had seen an opportunity that they believed had high potential for success; they did not know the lead entrepreneur, however, but had received two emails about them. These emails contained the “signals” of competence (past success or failure in a startup) and character (signals of honesty or questionable honesty in a social interaction). The subjects were asked to assess the extent to which they believed the entrepreneur competent and of good character. They were also asked their inclination to invest in a venture led by this (fictional) person. We found that indeed trustworthiness perceptions are influenced by even weak, consistent signals of competence and character. Additionally, we found that negative character signals have an especially potent influence on willingness to invest. That is, investors’ willingness to invest is more sensitive to mixed signals of character than it is to mixed signals of competence. Results supported our principal proposition that it is easier to discount a single piece of negative information that pertains to competence than it is to discount one that pertains to character. These results show the critical importance for aspiring entrepreneurs to carefully safeguard their reputation for integrity, and they provide a first step in understanding how critical judgments and “gestalt” assessments begin to form in highly uncertain environments.

The rest of this paper is organized as follows: the first section develops our core hypotheses; next, we describe our methodology; we then present our results; finally, we discuss (1) the implications of our study for theory and practice, (2) the limitations of our work and how they
bound our interpretations, and (3) our plans for a follow on study that will address some of the current limitations and clarify some issues left open in the current work.

**Theory and Hypotheses**

A vast literature in venture capital has examined the criteria investors use to select new ventures to invest in (Landstrom, 2007). Depending on one’s perspective, the persistent myth or reality of the venture capital industry is that venture capitalists make investment decisions primarily based on their assessment of the quality of the entrepreneur or the entrepreneurial management team (De Clercq, Fried, Lehtonen and Sapienza, 2006; Tyebjee and Bruno, 1984). Some, however, question whether the entrepreneur looms as large as many venture capitalists claim (e.g., Zider, 1998). Others point out that the lack of consistency between espoused criteria and criteria-in-practice leave us wondering whether venture capitalists themselves understand how they reach their judgments (Zacharakis and Shepherd, 2001). Although such discrepancies persist -- and although other issues such as size of market, perceived advantage and uniqueness of idea, and ferocity of competition also clearly play an important role -- most agree that the assessment of the entrepreneur (and the entrepreneurial team) is critical in the decision to invest (De Clercq, et al. 2006).

Despite the relative consensus about the criticality to the investment decision of assessments of the entrepreneur, little delving beneath the surface of entrepreneurial “quality” has occurred. For the most part, the implicit assumption has been that investors are primarily interested in the competence part of the trustworthiness equation. Studies that examine or control for the “track record” of entrepreneurs use such proxies as industry experience, startup experience, and education. This approach, common through the 1990s and early 2000s, reflects the tendency to depict investors as rational maximizers, concerned solely with hard data (Sapienza and Villanueva, 2007). Yet early open-ended questionnaires such as those administered by Tyebjee and Bruno (1984) revealed that venture capitalists are also critically interested in ‘softer’ issues, such as the honesty, integrity, and goodwill of the prospective investee. Sapienza (1989), for example, noted the extremely important role of interpersonal trust in the initial investment decision and in the development of the relationship between the entrepreneur and the investor. All told, however, we understand little about how venture capitalists (VCs) actually come to their decisions nor about the relative part played by competence and goodwill trustworthiness in the judgments of private or “angel” investors (Smart, 1999).

Our purpose in this paper is to partially redress this gap in our understanding by focusing on how investors use signals of competence and goodwill to come to a decision of whether or not to trust in a given entrepreneur, i.e., to trust enough to make a significant investment in the entrepreneur and in the investment opportunity. Thus, our central research questions are, how do signals of goodwill and competence influence trustworthiness perceptions of goodwill and competence? And how do they influence the decision to invest?

In our paper we make a fundamental distinction between goodwill and competence trustworthiness hypotheses, a distinction originally identified by Sako (1992). This separation parallels the distinction between ‘relational risk’ and ‘performance risk’ (Das and Teng, 1998). Goodwill trust conveys expectations of behavioral trust (Williamson, 1985), and implies that the entrepreneur will not behave in an opportunistic manner in the face of the inevitable
unforeseen contingencies that bedevil any exchange relationship over time and therefore make contracting incomplete (Williamson, 1975). It also implies that the trusted party will not behave opportunistically even when they may do so without fear of detection or reprisal (Saparito, Chen, and Sapienza, 2000). Goodwill trustworthiness includes the avoidance of hidden agendas which may blight an exchange relationship (Khanna, Gulati and Nohria, 1998). Competence trustworthiness, in contrast, implies that the trustor believes that the trustee is capable of adequately performing required tasks. For entrepreneurs running high potential ventures, these would include, depending on venture stage, the reasonably accurate assessment of demand and understanding of market needs, the development of the entrepreneurial product or service, the hiring of a competent new venture team, and in general the satisfactory conduct of the range of business activities that would lead to a positive outcome for the entrepreneurial venture. Excluded from this set of activities would be events over which the entrepreneur has no control, such as bad luck, regulatory changes, or unexpected shifts in the market.

It is also important to note that while we have been using the terminology of ‘trust,’ the literature has made a distinction between ‘trust’ and ‘trustworthiness,’ in which the former refers to the propensity on the part of the trustor to trust the trustee, while the latter refers to the characteristics of the trustee that engender trust in the trustor (Dirks and Ferrin, 2001; Barney and Hansen, 1994). Thus, trustworthiness reflects a trustor’s belief about a trustee’s intentions and motives (Mayer, Davis and Schoorman, 1995; McKnight, Cummings and Chervany, 1998). These assessments of trustworthiness are a strong and immediate determinant of trustworthiness perceptions and trusting behavior (Colquitt, Scott, Lepine, 2007). Therefore, we focus on trustworthiness in this investigation. We begin by laying out the decision characteristics under which assessments of goodwill and competence trustworthiness are made. In the face of inadequate, ambiguous or conflicting information, organizational decision-makers are subject to a number of biases that have been well articulated by behavioral decision theorists. These include biases of generalizing from small samples, extrapolating inappropriately from previous experience, and those stemming from recency and vividness factors (Kahnemann and Tversky, 1982). Researchers in a number of areas have shown that individual decision-makers tend to use heuristics to deal with uncertain and ambiguous information cues, to the point of erroneously reaching a positive or a negative decision (Meyerson, Weick, and Kramer, 1996). Thus, our point of departure is to identify and delineate the conditions under which decision-makers faced with such uncertainty, make assessments about goodwill and competence trustworthiness. We elect to set aside, for this paper, individual level dispositional differences that may play a role in the creation and outcomes of trustworthiness (although we control for it empirically). Instead, we build our arguments by drawing on the literature from trust and trustworthiness, sense-making, and behavioral decision theories. We proceed by formulating a series of propositions for both the specific research questions that we articulate below.

In developing our hypotheses, we utilize three distinct dependent variables: perceptions of goodwill trustworthiness, perceptions of competence trustworthiness, and the willingness of the angel investor to invest in a venture run by the focal entrepreneur. A key premise is that the third variable is important because it reflects the strength of the trustworthiness perceptions to a significant degree. In essence, it is of great practical and theoretical importance to uncover mechanisms that alter perceptions in a manner that also alter planned behavior; if investors only perceive more or less trustworthiness but are unaltered in their investment intentions the effect would be of more limited importance.
Our hypotheses are structured to first examine, as a starting baseline, the effects of cues or signals of competence and integrity on the corresponding perceptions of each type of trustworthiness. We then move to the heart of our theorizing, in which we examine the effect of cues of one kind of trustworthiness on the relationship between inconsistent cues of the other kind and trustworthiness. Our final set of hypotheses examine mediation effects of trustworthiness types on the relationship between the single and the combined effects of the two types of trustworthiness cues on the willingness to invest. Our hypothesis strategy is direct and straightforward by design, leaving the comparison of relative effects of goodwill and competence trustworthiness to our analyses and results.

Assessment of Character and Competence

In our baseline hypotheses we argue, straightforwardly, that when cues of a certain kind of trustworthiness exist, the trustor will be more likely to perceive the trustee as trustworthy in the same dimension of trustworthiness. These baseline hypotheses reflect the idea that investors are searching for signals that the entrepreneurs can in fact be trusted and will specifically relate signals (cues) about one form of trustworthiness to trustworthiness beliefs about that same form of trustworthiness. Thus, competence cues will engender competence trustworthiness, and goodwill cues, goodwill trustworthiness. Framed in the formal language of trustworthiness, the hypotheses are as follows:

\[ H1a: \text{Consistently positive goodwill cues have a positive impact on trustworthiness perceptions of goodwill.} \]

\[ H1b: \text{Consistently positive competence cues have a positive impact on trustworthiness perceptions of competence.} \]

Inconsistent Cues and Trustworthiness Judgments

In the discussion below we make a subtly different point – extending the interpretation of one form of trustworthiness to the other when information about the latter is weak or missing. Thus, in the context of weak signals about competence or goodwill trustworthiness, decision makers will tend to use the available information about the other form of trustworthiness and make extrapolations from the cues at hand to arrive at judgments about characteristics that are missing (Daft and Weick, 1984). Moreover, in the presence of clear signals about one kind of trustworthiness and weak or absent signals about the other kind of trustworthiness, assessments of the other will tend to be consistent with the first. This pattern of behavior reflects both a consistency bias, as well the desire to resolve uncertainty (Kahnemann and Tversky, 1982; Thompson, 1967). For example, with weak or absent cues about competence, decision makers may seize upon evidence of goodwill as a lens through which to view the cues about competence. Similarly, clear cues about competence may influence assessments of goodwill when information about goodwill is missing. The foregoing arguments imply the following hypotheses:

\[ H2a: \text{When goodwill cues are inconsistent, a positive (negative) competence cue will increase (decrease) trustworthiness perceptions of goodwill.} \]

\[ H2b: \text{When competence cues are inconsistent, a positive (negative) goodwill cue will increase (decrease) trustworthiness perceptions of competence.} \]
Cues, Trustworthiness Judgments and Willingness to Invest

Our final set of hypotheses focus on the willingness to invest, and the extent to which trustworthiness assessments of one kind of trustworthiness or the other mediate the relationship between cues of each kind of trustworthiness and the investor's willingness to invest. We consider this set of hypotheses rather critical. While past research has implied that decisions to engage in exchange relationships and to invest resources in an entrepreneurial venture are based on judgments about the quality of the lead entrepreneur and the entrepreneurial team (MacMillan, et al., 1985), we are not aware of specific research that has actually investigated the role of trustworthiness, mediating or otherwise, in making investment decisions. However, the willingness to invest in the venture is a form of risk-taking behavior. Theory suggests that when one party in a relationship is perceived as trustworthy, the other party is more likely to engage in risk taking in the relationship, delegating important tasks and resources to the trustworthy party (Mayer et al., 1995). This important consequence of trustworthiness has been demonstrated using numerous indicators of risking in the relationship such as delegation, information sharing, less monitoring, and the rejection of safeguards (Colquitt, Scott, & Lepine, 2007). Consistent with this relationship, we argue that the process of forming assessments of trustworthiness on each of the two trustworthiness dimensions we investigate in this study precedes the investment decision, such that cues that support one or another kind of trustworthiness are filtered through trustworthiness perceptions of the same type. Thus,

\[ H3a: \text{The impact of goodwill cues on willingness to invest is mediated by trustworthiness perceptions of goodwill.} \]

\[ H3b: \text{The impact of competence cues on willingness to invest is mediated by trustworthiness perceptions of competence.} \]

As reflected in Hypothesis 2, we propose that trustworthiness cues not only have independent effects on perceived trustworthiness but also jointly influence each dimension of trustworthiness. Specifically, each dimension of trustworthiness cues is hypothesized to impact the other when there are mixed signals. Competence cues should help clarify inconsistent information on goodwill, and goodwill should help clarify inconsistent information on competence. Given the proposed relationship between perceived trustworthiness and willingness to invest, we expect that trustworthiness cues will jointly affect the willingness to invest, and that this effect will be mediated by both types of perceived trustworthiness. That is, when goodwill cues are inconsistent, an increase in favorable competence cues will result in an increase in the willingness to invest. Similarly, an increase in favorable goodwill cues when competence cues are inconsistent will positively impact the willingness to invest. Following the logic for the link between trustworthiness and risk taking in the relationship (Mayer, et al., 1995), perceived trustworthiness should mediate the joint impact of cues on willingness to invest.

\[ H3c: \text{The impact of the joint effect of goodwill and competence cues on willingness to invest is mediated by trustworthiness perceptions of goodwill.} \]

\[ H3d: \text{The impact of the joint effect of goodwill and competence cues on willingness to invest is mediated by trustworthiness perceptions of competence.} \]
METHODS

Context

This investigation focuses on processes that are fundamental to social exchange relationships across a wide variety of contexts. At the same time, research in this area would benefit from designs that allow for robust causal inferences. Given the fundamental nature of the relationships we are studying, we opted to maximize causal rigor by employing an experimental design.

Participants and Procedure

Participants were recruited from a large Midwestern University on a voluntary basis and were offered $5 in exchange for the participation. The study was open to anyone over 18 years of age. We received 413 completed questionnaires, and 52% of these were from male respondents. We used a 3 x 3 design in which we manipulated cues regarding competence (positive, negative or mixed) and cues regarding good will (positive, negative, or mixed). Participants received a packet containing a scenario in which they assumed the role of an investor explore a potential investment opportunity with a particular entrepreneur. Each scenario contained a brief description of the opportunity and two emails each containing one cue of entrepreneurial success or failure (competence or incompetence, respectively) and one cue of honesty or dishonesty (goodwill or lack thereof). Thus, each scenario contained four cues, two in each dimension of competence or goodwill. Cues within dimensions were either both positive, both negative or one positive and one negative and one positive. After reading the scenario, participants completed a brief questionnaire assessing the manipulations, trustworthiness and willingness to invest in the venture.

Competence cues were manipulated by varying the information regarding the entrepreneur’s past success. The two positive competence cues indicated that the hypothetical entrepreneur had (a) grown two businesses from virtually nothing to $20 million in a couple of years and regularly exceeds sales projects, and (b) made a great deal of money for investors, is an innovator and customer focused. The two the negative competence cues indicated that (a) taken two businesses from $20 million to virtually nothing in a couple of years and regularly fails to meet sales projects, and (b) lost a great deal of money for investors, is not much of an innovator and is not customer focused. Goodwill cues were manipulated by varying information on the entrepreneur’s honesty. The two cues in the positive trustworthiness cues indicated that the entrepreneur (a) was very honest in keeping scores in a round of golf and (b) paid back a debt for a cup of coffee at next meeting and without being prompted. The two negative cues indicated that the entrepreneur (a) did not appear to be honest in score keeping a round of golf, and (b) twice claimed to not have his wallets when it came time to repay a cup of coffee.

Measures

We adapted scales from Mayer and Davis (1999) to assess perceptions of competence-based trustworthiness and goodwill-based trustworthiness. Competence-based trustworthiness was measured by five 5-point Likert-type items asses the entrepreneurs’ skills and qualifications (e.g., “Sam is clearly successful at the things he tries to do”; α = .90). Goodwill-based trustworthiness was measured by six 5-point Likert-type items assessing the entrepreneur’s honest (e.g., “Sam appears to be honest.” α = .92). Willingness to invest was measured by four items created for this study (e.g., “It is very possible I would invest in this startup” α = .78).
RESULTS

Hypotheses were tested by a series of ANOVAs and planned comparisons. The results for perceived goodwill-based trustworthiness (H1a) indicate a significant main effect of goodwill cues on goodwill trustworthiness ($F_{2, 412} = 300.25, p > .001, \eta^2 = .59$). Post hoc comparisons indicate that the means for each condition were significantly different from each other. That is, perceived goodwill-based trustworthiness was significantly higher in the positive condition than in the mixed condition, and the means both of these conditions were significantly higher than in the negative condition. The results for perceived competence-based trustworthiness (H1b) were similar: competence cues had a significant main effect on competence-based trustworthiness ($F_{2, 412} = 227.55, p > .001, \eta^2 = .50$), such that the entire mean in the positive condition was highest and the mean in the negative condition was lowest. These results support Hypotheses 1a and 1b.

Although not hypothesized, the results indicate that cues in one trustworthiness dimension affect perceptions of trustworthiness along the other dimension. Specifically there was a main effect of competence cues on goodwill-based trustworthiness ($F_{2, 412} = 3.44, p > .05, \eta^2 = .01$). However, post hoc comparisons indicated that neither consistent positive cues nor consistent negative cues were significantly different from mixed cues. Similarly, goodwill trustworthiness had a significant impact on competence trustworthiness ($F_{2, 412} = 27.01, p > .001, \eta^2 = .06$). Post hoc comparisons indicate that all conditions were significantly different from one another. These findings suggest spillover effects wherein cues on one dimension affect trustworthiness perceptions on the other dimension. This interpretation is related to the next hypothesis.

Hypotheses 2a and 2b addressed how mixed signals in one dimension of trustworthiness are clarified by cues in the other dimension of trustworthiness. To test these hypotheses, we conducted a series of planned comparisons. For perceived goodwill-based trustworthiness (H2a), we focused on the condition of mixed goodwill cues, and compared the group in which competence cues were also mixed to the groups in which competence cues were either all negative or all positive (see the center block of bars in Figure 1a). Neither of these comparisons produced a significant difference in goodwill-based trustworthiness, suggesting that competence cues do not clarify mixed signals in goodwill trustworthiness. Therefore, Hypothesis 2a was not supported. For competence-based trustworthiness, we compared within the mixed competence cues condition the mixed goodwill cues group to the groups in which goodwill cues were all positive or all negative (see center block of Figure 1). The findings indicate that when competence cues are mixed, consistent negative goodwill cues lead to significantly lower competence-based trustworthiness as compared to mixed goodwill cues, and consistent positive goodwill cues lead to significantly higher competence-based trustworthiness (see the left-most panel in Figure 1). In other words, when competence cues are mixed, the change in one goodwill cue significantly alters perceptions of competence trustworthiness. These findings support Hypothesis 2b.

The final set of hypotheses addressed whether trustworthiness perceptions mediate the impact of cues on the willingness to invest. Mediation is predicated on the independent variables significantly affecting willingness to invest. We therefore conducted an ANOVA on willingness to invest which revealed that both competence and goodwill cues and their interaction significantly affected willingness to invest (see Block 1 of Table 1). The means, plotted in the right-hand panel in Figure 1, show that when competence cues are mixed, positive and mixed goodwill cues have the strongest impact on willingness to invest. Regression analyses show that main effects of both
types of cues were eliminated by the addition of both goodwill and competence perceptions of trustworthiness, which were both significantly related to willingness to invest (see Block 2 of Table 1). We also ran separate regressions on goodwill cues and competence cues to isolate which effects each was accounting for. These results suggest that goodwill trustworthiness mediates goodwill cues, that competence trustworthiness mediates competence cues, and that the interaction of trustworthiness components mediates the interaction of cues. These results fully support H3a and H3b regarding mediation. However, because the interaction of cues did not impact either goodwill or competence trustworthiness perceptions, trustworthiness perceptions are not able to mediate the main effects of cues on the willingness to invest. Thus, H3c and H3d were not supported. Additional observations about non-hypothesized relationships will be addressed in the discussion which follows.

**Discussion**

We set out in this research to investigate how judgments of trustworthiness begin to form in investors given limited, and at times contradictory, signals or cues. A premise of our study is that impressions begin to form rapidly and that such early impressions may be especially important because they may build over time to become hard-to-alter judgments. Given the difficulty and uncertainty of controlling all pertinent factors in a real-world setting, we designed an experiment to see how would-be investors respond to simple but ambiguous, and at times contradictory, cues of entrepreneurs' character (in this case, integrity) and competence to build a successful new venture. We predicted that simple cues of an entrepreneur’s character and competence would significantly affect the willingness of investors to invest in a venture led by that entrepreneur, mediated by the investors’ perceptions of trustworthiness. We also predicted that signals about one type would function to clarify perceptions or judgments of the other type.

In short, we found, first, that investors do attend to and are affected by even modest signals (positive, mixed, and negative) of competence and goodwill trustworthiness. We had taken pre-measures of propensity to be trusting; i.e., to believe in the general competence and goodwill of others. These predispositions were strongly overwhelmed by the conditions subjects were placed in. For our second set of hypotheses, we predicted that when given inconsistent signals of one type of trustworthiness that signals of the other type would strongly shape the perception of the other. Thus, H2a predicted that given inconsistent signals of goodwill, competence signals (positive or negative) would strongly influence judgments of goodwill trustworthiness. This prediction was not supported. However, we did support the prediction that inconsistent signals of competence would be resolved or shaped by consistent signals of goodwill (positive or negative). These results suggest that individuals’ impressions of goodwill are especially potent: they are not altered by cues about competence, and they help shape impressions of other characteristics. This result is perhaps the most important one from a practical perspective: goodwill trustworthiness is especially potent.

To illustrate this point, consider the right-hand panel in Figure 1. It is noteworthy that two positive goodwill signals in conjunction with mixed competence signals (one positive and one negative) results in a greater propensity to invest than does a condition of two positive competence signals in conjunction with mixed goodwill signals (one positive and one negative). This suggests that investors are more willing to gamble on doubts about competence than on doubts about character. In short, it appears that angel investors may be more concerned about equivocal signals of character than equivocal signals of competence.
Our mediation hypotheses though relatively straightforward are also worth considering in some
depth. It is not surprising, on the surface, that positive indicators of competence and character
should translate into positive impressions of competence and character, respectively, or that such
perceptions should fully mediate the effects of the cues on inclination to invest. Yet the mediation
does suggest some important possibilities. The results suggest that signals or cues have an effect
on decisions only to the extent they are translated into judgments about the trustworthiness of the
entrepreneur. This interpretation leaves open the possibility that signals which do not register as
competence or character relevant will not affect decisions. In our study, investors were provided
with four cues embedded in emails from respected associates. What happens when the number
increases dramatically—do the first ones matter the most, and in a snowballing fashion? Or, do
all equally affect impressions, regardless of when they occur? Further, our cues regarding goodwill
trustworthiness were rather mild and ambiguous (i.e., the entrepreneur appeared to keep score in
golf honestly or not; the entrepreneur paid back or did not pay back for a cup of coffee). What
is the range of cues open to attributions? Can entrepreneurs themselves do anything to shape
perceptions?

We ostensibly “know” from the literature that investors make decisions based on the
competitive advantage of the technology, the size and growth potential in the market, and the
quality of the lead entrepreneur and entrepreneurial team—and that many if not most deem the
entrepreneur as by far the most important factor (MacMillan et al., 1986). Indeed, some research
suggests that this dominance of the key entrepreneur criterion is even more true of angel investors
(Smart, 1999; van Osnabrugge, 2000). Yet some have questioned whether investors understand
their own decision process and whether they make judgments consistent with their own “rules”
(Zacharakis and Meyer, 1998). We show in this study how investors may begin to form overall or
“gut” judgments about the entrepreneurs they are considering as partners. We believe that such
judgment formation may be unconscious processes that influence or shape how decision criteria
are applied. The practical implications for entrepreneurs in terms of attracting resource providers
and for angel investors in terms of reaching useful and accurate judgments of entrepreneurs and
their trustworthiness. We suspect also that entrepreneurs also form judgments of their investors in
a similar manner, drawing on fellow contacts and associates to gather information about investors.

Our study has theoretical implications beyond the specific case of investors reaching initial
judgments about entrepreneurs and vice versa. It is not an overstatement to say that situations
requiring and provoking judgments of trustworthiness are ubiquitous in organizational life.
Organizational trust research has made considerable headway in recent years (e.g., McEvily,
Perrone, & Zaheer, 2003; Rousseau, Sitkin, Burt & Camerer, 1998) but has made little progress in
regard to how the two very different dimensions of trust, competence and goodwill, relate to one
another. We find evidence that the two may be formed in similar ways and may even play a role
both in the formation of one another and in an “overall” judgment of trustworthiness.

Although we did anticipate that cues about one type of trustworthiness would yield some
effects on perceptions of the other, we did not make an explicit prediction regarding the effects of
the interaction of the cues on willingness to invest. Table 1 shows that goodwill and competence
cues have significant effects on willingness to invest, even in the presence of trustworthiness
perceptions (see Block 2). This result suggest to us that there is a kind of multiplicative effect of
cues such that judgments become more “confident” as signals of the two align. Further theoretical
and empirical study, however, is needed to fully explore how and when such effects hold.
Limitations

A key limitation of this study is that it was conducted as an experiment with university-level students rather than with actual investors. One possibility is that experienced angel investors might respond differently to cues than would students. Furthermore, it is difficult in experimental settings to replicate the conditions that would be faced in the real world such as a variety in types of cues, as well as variety in frequency and strength of cues and so on.

Another limitation is that the decision makers did not have to make an actual investment; they were asked only to assess the likelihood that they would be willing to invest. Taking action may not be as sensitive to cues as would propensities or intentions to act. Nevertheless, the experimental situation allowed us to control factors that might confound or muddy relationships and, hence, interpretation of results and causality.

Future researchers should seek to replicate our results with actual investors. They might also be well-advised to make some adjustments that reflect the reality of early stage investing. For example, too little information may be present to make a decision on propensity to invest; given the value of investors' time and effort, it may be better to look at propensity to take additional due diligence efforts. Given that angel investors are more likely to be making independent investments in early stage ventures than are private venture capital firms, angel investors would likely be the best candidates for this replication. It would also be interesting, however, to bring a similar task to a group decision processes inside or across organizational boundaries.

Future Research Directions and Conclusions

Perhaps one of the most critical extensions of our work would be to make a set of finer grained theoretical predictions about what constitutes signals of competence and goodwill, particularly in different contexts, including specific decision areas, such as finance or marketing, where the signals of competence and goodwill might substitute for each other to greater or lesser degrees. Another might be to more directly replicate the entrepreneurial investment decision context in an experimental setting, such as by factoring in the safeguards that are commonly used in making such decisions, including staged and piecemeal investments which are incrementally increased when certain benchmarks are met. Yet another area of potential extension might involve a systematic application of the biases and heuristics identified by Kahneman and Tversky (1982) and the role that each might play, together and interactively, in reaching decisions of trustworthiness whether misplaced or not.

Another extension would be to investigate whether different conditions alter the salience of each trustworthiness dimension. For example, are there circumstances in which malfeasance or dishonesty are less important? Does the scarcity of talent or competence increase or decrease the importance of goodwill trustworthiness? Are there “unforgivable” sins of character that cannot be compensated by any level of skill or talent? How long ago may missteps have occurred before they “expire” as a source of trustworthiness perceptions?

It might also be fruitful to investigate other factors that might influence the trustworthiness judgment formation process. We studied the influence of third party cues. What behaviors or artifacts of the entrepreneurs themselves are critical in judgment formation?
In conclusion, we set out to add to the understanding of how investors come to a rapid decision of whether or not to invest in early stage ventures. Based on our premise that assessments of the key entrepreneur would be critical to such judgments, we designed an experiment to examine whether cues from third parties would significantly shape trustworthiness judgments and, hence, investment decisions. We found that indeed such cues critically shape perceptions of trustworthiness and that these perceptions significantly influence inclinations to invest. We found intriguing “cross” effects of cues wherein a cue of a given type of trustworthiness also affects the judgment of a different type of trustworthiness. Our study suggests that many intriguing avenues remain to be followed in a quest to understand how investors reach their critical investment decisions.

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REFERENCES


Figures 1: Cell Means for Perceptions of Competence-based and Goodwill-based Trustworthiness and Willingness to Invest

![Graphs showing cell means for perceptions of competence-based and goodwill-based trustworthiness and willingness to invest.]

Table 1: Mediation Analysis for the Effect of Cues on Willingness to Invest

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* p < .05
** p < .01
*** p < .001