

Dear Professor King

Please find enclosed the revised version of our paper (AMR-08-442R.1), now titled “Imagining and rationalizing opportunities: Inductive reasoning, and the creation and justification of new ventures”. We greatly appreciate the opportunity that we have been given to further revise the manuscript. The thoughtful guidance provided by you and the reviewers have really helped in positioning and strengthening the theory development in the manuscript. We are really grateful for the expert comments and excellent advice we have received.

Please allow us to explain how we dealt with the issues raised in your letter. We have also attached separate responses to each of the reviewers.

- (1) Theoretically focused, cogent and cohesive argument. We have revised the section on sensemaking so that our theoretical position is more carefully introduced. We also better highlight how sensemaking bridges the cognitive and institutional traditions (pages 6-9). In response to your comments we have also re-focused and bounded the process theory developed in the paper to bring it into line with our theoretical position. One important boundary condition in this respect is that we focus on the initial stages of a venture (exploration, planning and launch) as the context for our theorizing. The reason being that in these early stages entrepreneurs are likely to use analogical and metaphorical reasoning to create the opportunity for new ventures and to set these apart from what already exists while locating their ideas within stakeholders’ existing understandings in order to gain acceptance and support (Hargadon & Douglas, 2001; Santos & Eisenhardt, 2009). After the launch, and when the venture achieves a turnover and early growth as indicators of its profit-making ability (Hite & Hesterley, 2001; Zimmerman & Zeitz, 2002), entrepreneurs generally become less reliant on inductive reasoning. Instead, they may shift to more calculated reasoning that is based on direct experiences and the performance of the new venture in its industry (Aldrich & Fiol, 1994; Hargadon & Douglas, 2001; Hill & Levenhagen, 1995).

Within this bounded setting, we develop a process theory and develop a parsimonious formulation of when and how entrepreneurs use analogies or metaphors, whilst speaking, to make and give sense about novel ventures to different stakeholders. Specifically, the use of analogies or metaphors in relation to new ventures is, we argue, conditioned by the degree to which an entrepreneur has had previous experiences in, and has learnt about, the same or similar industries in which the new venture will be based (Shane, 2000, 2003). It is also conditioned by the activation of social pressures to demonstrate the predictability and legitimacy of a venture to stakeholders (Aldrich & Fiol, 1994; Lounsbury & Glynn, 2001).

These two determinants influence the extent to which and how an entrepreneur uses analogical or metaphorical reasoning during the initial stages of exploring ideas, and of planning and launching a venture. We develop propositions to distil the main arguments. The propositions incorporate to a greater extent than before the interaction with stakeholders (in the form of activated social pressures and stakeholder feedback), making it a more interactive model, whilst maintaining the focus on the same dependent variable (i.e., the use of analogies or metaphors in entrepreneurial sensemaking). In this way we hope to have tightened the theorizing in the manuscript.

- (2) Interactive elements of proposed theory. Thank you also for pointing to these issues around the interactive elements of our theorizing. We have made a number of changes in this respect. First of all, we now incorporate the impact of stakeholders on entrepreneurial sensemaking and have formulated propositions (P5-6) to this effect. We have also provided published examples to better illustrate the gist of the propositions (Santos & Eisenhardt, 2009). Whilst as mentioned the propositions incorporate to a greater extent than before the interaction with stakeholders (in the form of activated social pressures and stakeholder feedback), we maintain the focus on the same dependent variable (i.e., the use of analogies or metaphors in entrepreneurial sensemaking). In other words, we focus on how the sensemaking of entrepreneurs changes as a result of interactions with stakeholders rather than shifting to a different (i.e., group) level of analysis.

We have also acknowledged the limitations of a focus on language in entrepreneurship and new venture creation. For example, on pages 9-10, we recognize that whilst we focus exclusively on verbal acts of sensemaking, material circumstances and objects may also trigger or anchor verbally produced conceptual images or scenarios for a venture (e.g., Baker & Nelson, 2005; Denrell et al., 2003). But this is beyond the scope of the paper. On page 29 we also mention that we restrict our focus to verbal analogies and metaphors. That is, we acknowledge that inductive reasoning may also involve analogies or metaphors in other “modalities”, including the drawing of pictorial images or the construction of prototypes or artefacts (e.g., Cornelissen et al., 2008), but this is beyond the scope of the paper. We thank reviewer #1 for his/her insights on this point.

Finally, we have in various places in the manuscript addressed the relationship between language and action. We have clarified our theoretical position of sensemaking (page 7) which is defined as an act of turning circumstances “into a situation that is comprehended explicitly in words and that serves as a springboard to action” (Taylor & Van Every, 2000: 40,

see also Weick et al., 2005: 409). This position implies that the world does not present itself in a direct or “raw form”, but entrepreneurs actively construct it, using available linguistic frames including pre-fabricated vocabularies (Weber, 2005) that become elaborated in a coherent way, thus shaping thinking whilst speaking (Figure 1). The images that entrepreneurs articulate in words as mentioned may be closely related to actions or physical resources (see the above point). In addition, even whilst such images may allow for different interpretations, they may nonetheless guide and constrain the actions that are open to entrepreneurs (in other words, sensemaking through words “is a springboard to action”). Hence, we assume consistent with our theoretical position that there is a relationship between language and action – this is not one of direct correspondence (reviewer #3) but verbally constructed realities do guide decisions and in a social context raise expectations about appropriate behaviours. Baker et al. (2003) also illustrate this point within their observation that in interactions with employees, entrepreneurs added analogies or metaphors (e.g., of the venture organization as a “family”) that they had “made up on the fly to make their fledgling firms seem comfortable and normal – that is, legitimate – to potential employees”. However, in turn, such social constructions “became part of employee expectations and the emerging culture of the organization after the people [had] joined the firm” (Baker et al., 2003: 263). The implication is that entrepreneurs have of course some space to manoeuvre in terms of what they would *do* in line with the entailments of, for example, a family metaphor; but they are constrained in this respect. Actions that fall outside of the metaphorical frame would be more difficult and would highlight a crack between rhetoric and reality – similar to a case of the (physical) capabilities of search engines being inconsistent with the expectations raised about these sites through framing (reviewer #3).

- (3) Precision and clarity of presentation. Thank you also for your frank comments on this point. We have worked hard on the clarity and presentation of the manuscript. We have benefited in this respect from peer review. We also employed a professional copy-editor to go through the text. In addition, the rewriting in response to the other comments has led to a stream-lining and focusing of our main arguments and propositions, and hence to a reduction of the overall length of the manuscript.

We would like to express our gratitude to you and the reviewers for the extremely helpful comments and for your guidance in the revision. We hope that our efforts have succeeded in allaying your and the reviewers’ concerns. We look forward to the next set of reviews and to learn about your decision.

**Letter to Reviewer #1**

Thank you for your frank and constructive comments. These comments have helped us a lot in clarifying and sharpening our theoretical arguments. Following your suggestion, we have also spent a lot of time on the text to make the writing more clear and concise. Thank you for all of your suggestions and comments.

1. Thank you again for your positive reaction to our paper. We have maintained the sections at the start of the paper, but have revised parts of these sections to clarify the theoretical position (sensemaking) at the interface of the cognitive and institutional traditions in entrepreneurship. We have also added the language of institutional theory (1a) on pages 9 and 13 in line with your suggestion. The second point of concern has been addressed by emphasizing that we focus on how entrepreneurs communicate about ventures in social contexts (1b). Specifically, we incorporate the influence of stakeholders on entrepreneurs' sensemaking (and subsequent choices and actions), but model the sensemaking process as asymmetric as opposed to framing the process as dialogic or in terms of a co-orientation model of communication. In other words, through his/her sensemaking, entrepreneurs need to convince relevant others of the feasibility and legitimacy of their ventures. Whilst the feedback and ideas from stakeholders matter, entrepreneurs need to decide how they heed those ideas and change their sensemaking as a result. The revised set of propositions (P5-6) incorporates to a greater extent than the previous version the interaction with stakeholders (in the form of activated social pressures and stakeholder feedback). As such, the theorising directly addresses interactions with stakeholders, whilst maintaining the focus on the same dependent variable (i.e., the use of analogies or metaphors in entrepreneurial sensemaking). We have also provided published examples to better illustrate the gist of these propositions (Santos & Eisenhardt, 2009). In other words, we focus on how the sensemaking of entrepreneurs changes as a result of interactions with stakeholders rather than shifting to a different (i.e., group) level of analysis.
2. Thank you once again for making this point. We have acknowledged to a greater extent than before the limitations of a focus on language in entrepreneurship and new venture creation. For example, on pages 9-10, we suggest that whilst we focus exclusively on verbal acts of sensemaking, material circumstances and objects may also trigger or anchor verbally produced conceptual images or scenarios for a venture (e.g., Baker & Nelson, 2005; Denrell et al., 2003). But this is beyond the direct scope of the theorising in the paper. In addition, on page 29 we mention that we restrict our focus to verbal analogies and metaphors. That is, we acknowledge that inductive reasoning may also involve analogies or metaphors in other "modalities", including the drawing of pictorial images or the construction of prototypes or artefacts (e.g., Cornelissen et al., 2008), but similarly this is beyond the scope of the paper. We thank you for pushing us on this point and for acknowledging the limitations of our singular focus on the verbal speech acts

through which entrepreneurs simultaneously envision and rationalize the potential for novel ventures.

3. In response to your comments, we have cut back on direct quotations. We have also paid attention to the structuring and logic of our arguments, as well as the propositions (see point 5 below). We employed a copy editor to help us reduce the paper's length and to review the writing and flow of the text.
4. As mentioned above, we have tried to redress this point. We have clarified our theoretical position of sensemaking (page 7) which is defined as an act of turning circumstances "into a situation that is comprehended explicitly in words and that serves as a springboard to action" (Taylor & Van Every, 2000: 40, see also Weick et al., 2005: 409). This position implies that the world does not present itself in a direct or "raw form", but entrepreneurs actively construct it, using available linguistic frames including pre-fabricated vocabularies (Weber, 2005) that become elaborated in a coherent way, thus shaping thinking whilst speaking (see also Figure 1). The images that entrepreneurs articulate in words as mentioned may be closely related to actions or physical resources (see the above point). In addition, even whilst such images may allow for different interpretations, they may nonetheless in a social setting guide and constrain the actions that are open to entrepreneurs (in other words, sensemaking through words "is a springboard to action"). Hence, we assume consistent with our theoretical position that there is a relationship between language and action – this is not one of direct correspondence (reviewer #3) but verbally constructed realities guide decisions and, in a social context, raise expectations about appropriate behaviours. Baker et al. (2003) also illustrate this point within their observation that in interactions with employees, entrepreneurs added analogies or metaphors (e.g., of the venture organization as a "family") that they had "made up on the fly to make their fledgling firms seem comfortable and normal – that is, legitimate – to potential employees". However, in turn, such social constructions "became part of employee expectations and the emerging culture of the organization after the people [had] joined the firm" (Baker et al., 2003: 263). The implication is that entrepreneurs have of course some space to manoeuvre in terms of what they would *do* in line with the entailments of, for example, a family metaphor; but they are influenced and constrained in this respect. Actions that fall outside of the metaphorical frame would be more difficult and would highlight a crack between rhetoric and reality in the eyes of stakeholders. Metaphors may indeed therefore also constrain subsequent thinking because of prior commitments and expectations raised with stakeholders. Saturn, a novel venture around networking hardware (published in Santos & Eisenhardt, 2009) had been metaphorically induced on the basis of an "empty space" located near the telecom equipment and networking markets that, the founders suggested, the venture would "move into" and "capture". However, at the launch of the venture, the entrepreneurs were not very successful in communicating their vision to stakeholders. They did not elaborate the initial metaphor or tune their sensemaking to stakeholders. Instead, they

followed the vocabulary of the nearby networking market and provided a simple, but rather dry rationale for the venture (Santos & Eisenhardt, 2009: 652). In fact, industry analysts and prospective customers did not recognize the novel opportunity for Saturn and considered it as an extension to an existing market. In response to this feedback, Saturn did not replace their earlier sensemaking and therefore struggled for some time to gain acceptance and support for the venture. The “empty space” metaphor had constrained the entrepreneurs in their thinking and subsequent communication.

5. We have reformulated the propositions to bring them in line with our theoretical position and to incorporate the interaction with stakeholders. We have also reformulated them so that they present logical and testable predictions. Proposition 3 is extended from Goodman’s notion of entrenchment as a basis for the likelihood of inducing a particular analogy.
6. We are sorry that this and other examples in the previous version were confusing. In response to your comment, we have decided to include published examples from ventures in high-tech industries (Santos & Eisenhardt, 2009) to illustrate the main arguments and the propositions. These examples work well, we believe, in giving ecological validity to our claims. As an additional advantage there is further background to the featured examples of Secret, Magic and Haven in the *AMJ* article.
7. Thank you for this point. We have cut out the lengthy section on milestones in the venture creation process and have instead refocused our theorising on the two determinants -- the applicability of prior entrepreneurial experience, and the motivation to resolve uncertainty and acquire cognitive legitimacy for ventures. We have reformulated our propositions around the two determinants in terms of how these factors influence entrepreneurial sensemaking in the early, formative stages of creating a novel venture. This also meant that we have incorporated the interaction with stakeholders (in the form of activated social pressures and stakeholder feedback) within our main arguments and P5-6 (see also comment 1 above).

Thank you so much for these comments. They have helped a lot in focusing and sharpening the paper’s basic arguments and the set of propositions. Whatever the outcome, we would like to express our gratitude to you (and the other reviewers) for helping us make this a much better paper.

## Letter to Reviewer #2

We thank you for another set of thoughtful comments on the paper. Thank you also for pushing us on the positioning and on clarifying the underlying assumptions of our theorising. In response we have made the following changes.

Par. 1-4. We have rewritten the paper “locating” our theoretical position within sensemaking. We have taken your suggestion to heart to in this respect; we have revised the section on sensemaking so that our theoretical position is more carefully introduced. We better explain how sensemaking bridges the cognitive and institutional traditions (pages 6-9). We also highlight the role of analogies and metaphors, as part of sensemaking. On pages 11-12 we refer to how analogies and metaphors give structure, allowing entrepreneurs to make sense of puzzling or unfamiliar situations (e.g., Gioia, 1986; Gioia et al., 1994), and produce links to action by virtue of the inferences for action that they evoke (e.g., Gioia, 1986; Weick, 1995). Besides structuring situations into an understandable format, analogies and metaphors also socially justify decisions and actions to others (Creed et al., 2002) by validating some accounts and discrediting or pre-empting others (e.g., Rindova et al., 2004; Weick et al., 2005). In response to your comments we have also re-focused and bounded the process theory developed in the paper to bring it into line with our theoretical position. One important boundary condition in this respect is that we focus on the initial stages of a venture (exploration, planning and launch) as the context for our theorizing. The reason being that in these early stages entrepreneurs are likely to use analogical and metaphorical reasoning to create the opportunity for new ventures and to set these apart from what already exists while locating their ideas within stakeholders’ existing understandings in order to gain acceptance and support (Hargadon & Douglas, 2001; Santos & Eisenhardt, 2009). After the launch, and when the venture achieves a turnover and early growth as indicators of its profit-making ability (Hite & Hesterley, 2001; Zimmerman & Zeitz, 2002), entrepreneurs generally become less reliant on inductive reasoning. Instead, they may shift to more calculated reasoning that is based on direct experiences and the performance of the new venture in its industry (Aldrich & Fiol, 1994; Hargadon & Douglas, 2001; Hill & Levenhagen, 1995). Within this bounded setting, we develop a process theory and develop a parsimonious formulation of when and how entrepreneurs use analogies or metaphors, whilst speaking, to make and give sense about novel ventures to different stakeholders. Specifically, the use of analogies or metaphors in relation to new ventures is, we argue, conditioned by the degree to which an entrepreneur has had previous experiences in, and has learnt about, the same or similar industries in which the new venture will be based (Shane, 2000, 2003). It is also conditioned by the activation of social pressures to demonstrate the predictability and legitimacy of a venture to stakeholders (Aldrich & Fiol, 1994; Lounsbury & Glynn, 2001). These two determinants influence the extent to which and how an entrepreneur uses analogical or metaphorical reasoning during the initial stages of exploring ideas, and of planning and

launching a venture. We develop propositions to distil the main arguments. The propositions incorporate to a greater extent than before the interaction with stakeholders (in the form of activated social pressures and stakeholder feedback), making it a more interactive model, whilst maintaining the focus on the same dependent variable (i.e., the use of analogies or metaphors in entrepreneurial sensemaking). In this way we hope to have tightened the theorizing in the manuscript.

Par 5. As mentioned, we now start from the position of sensemaking as a bridge between cognitive and institutional approaches (see also Weick et al., 2005; Weber & Glynn, 2006; and Phillips et al., 2004; for comments on this bridge) and unfold our theorising from within this position.

Par 6. We do indeed treat sensemaking and sensegiving as interchangeable. On page 8, we highlight that because the social context interacts with processes of language use and cognition, we cannot draw too sharp a distinction between sensemaking for oneself and sensegiving to others (Gioia & Chittipeddi, 1991; Tetlock & Manstead, 1985). Once entrepreneurs communicate with others, such instances already integrate social pressures for persuasion and justification with linguistic and cognitive processes of sensemaking. In the paper, we therefore use the term sensemaking to refer to this general process.

Par 7. Thank you for this comment. On pages 8-9, we argue that our attempt here is predicated on not strictly focusing on cognitive accounts (that see an entrepreneur's sensemaking and action in context as derived from and determined by cognitive interpretations) nor symbolic/institutional accounts (that see it as largely conditioned and bounded by the discursive fields or communities in which entrepreneurs operate). Instead, we aim to conceptualize how language and thought interpenetrate in context and how meaning is not fixed but continually developing as a result of interactions with others. Such an approach does not deny agency or structure but shifts attention to individual acts of sensemaking around the early stages of new venture creation. Specifically, we conceptualize how, through analogical and metaphorical reasoning, entrepreneurs not only imagine new ventures that surpass their past experiences but also, through such reasoning, attempt to establish shared understanding, support and legitimacy for their burgeoning ventures. A sensemaking approach, therefore, bridges the cognitive and institutional traditions in that it sees language as not simply an extension or representation of cognitively recorded experiences but as actually formative of thought and hence as a resource that individuals use to create or produce common understanding of new ventures. The bridging is possible because, first of all, language is within sensemaking a creative act as opposed to being simply (or exclusively) an externalization (or conduit) for cognitive thought or a symbol of signification in social contexts. It is formative of thought both at the individual level as well as at the social or institutional level. In other words, in the initial stages of a venture, entrepreneurs make sense of opportunities for novel ventures by setting these apart from what already

exists whilst locating their ideas within stakeholders' existing understandings in order to gain acceptance and support (Hargadon & Douglas, 2001; Santos & Eisenhardt, 2009). To underscore this bridging, we emphasize assumptions associated with cognitive theory (thought-without-language) and institutional theory (language-without-thought) so that we can work with an understanding of language as a productive source for meaning and common understanding.

Par 8. As mentioned we locate and ground our theorising from the position of sensemaking.

Par 9. This point has been addressed by emphasizing first of all that we focus on how entrepreneurs communicate about ventures in social contexts. Specifically, we incorporate the influence of stakeholders on entrepreneurs' sensemaking (and subsequent choices and actions), but model the sensemaking process as asymmetric as opposed to framing the process as dialogic or in terms of a co-orientation model of communication. In other words, through his/her sensemaking, entrepreneurs need to convince relevant others of the feasibility and legitimacy of their ventures. Whilst the feedback and ideas from stakeholders matter, entrepreneurs need to decide how they heed those ideas and change their sensemaking as a result. The revised set of propositions (P5-6) incorporates to a greater extent than the previous version the interaction with stakeholders (in the form of activated social pressures and stakeholder feedback). As such, the theorising directly addresses interactions with stakeholders, whilst maintaining the focus on the same dependent variable (i.e., the use of analogies or metaphors in entrepreneurial sensemaking). We have also provided published examples to better illustrate the gist of these propositions (Santos & Eisenhardt, 2009). In other words, we focus on how the sensemaking of entrepreneurs changes as a result of interactions with stakeholders rather than shifting to a different (i.e., group) level of analysis. Secondly, and in response to your question, we mention on page 10 that we focus on how, in social contexts of speaking, entrepreneurs use inductive reasoning to create a meaningful opportunity for a novel venture and attempt to convince others of that opportunity to gain much-needed support. Through such reasoning, entrepreneurs verbally create a hypothetical world around a venture that they are yet to realise. Consistent with our theoretical position (sensemaking), it is the act of talking ventures into existence which defines the entrepreneur. Whilst we focus exclusively on verbal acts of sensemaking, we acknowledge that material circumstances and objects may trigger or anchor verbally produced conceptual images or scenarios for a venture (e.g., Baker & Nelson, 2005; Denrell et al., 2003), but this is beyond the scope of this paper.

Par 10. Thank you for your encouragement on this point. We focus from the start of the paper on the use of analogies and metaphors in entrepreneurial sensemaking (as the dependent variable). We then unfold our theorising around two determinants -- the applicability of prior entrepreneurial experience, and the motivation to resolve uncertainty and acquire cognitive legitimacy for ventures. We have reformulated our propositions around the two determinants in terms of how these factors influence the

use of analogies or metaphors in entrepreneurial sensemaking during the early, formative stages of creating a novel venture. This also meant that we have incorporated the interaction with stakeholders (in the form of activated social pressures and stakeholder feedback) within our main arguments and P5-6 (see also comment 1 above).

Par 11. As mentioned we now also refer to work on analogies and metaphors from within the sensemaking tradition as a backdrop to our theorising (see comment with par 1-4 above). We also appreciate your points about abduction and induction which captures the early stages of the venture creation process. That is, when entrepreneurs perceptually sense or feel that there may be an opportunity for a venture in a particular industry (through some kind of abductive reasoning or “hunch”), they make that opportunity intelligible to themselves and others through inductive reasoning (Hill & Levenhagen, 1995). Because no entrepreneur, however prescient, can see into the future or know with certainty how decisions and actions will pan out, they necessarily rely on inductive reasoning for this purpose. By inducing images or scenes of how new ventures are likely to function in an industry and grow, or alternatively of how entrepreneurs want them to function and grow, entrepreneurs as well as relevant others (e.g., investors and employees) achieve some ability to comprehend the opportunity for a venture and the future consequences of decisions and actions.

Par 12. Thank you also for this comment. We read this comment as suggesting that the specific analogies and metaphors that entrepreneurs use can be already familiar and conventional, or wholly novel and creative (Cornelissen, 2005). Entrepreneurs may simply extend conventional analogies or metaphors in their speech to the new venture situation as the target. This kind of induction is known as a projection-first model (Gentner et al., 2001), since the analogical or metaphorical reasoning involves the direct projection of an entrenched description of a source domain onto a target domain, after which it is corrected and adjusted to the target (see Cardon et al., 2005; Farjoun, 2008; Gavetti et al., 2005: 696). Entrepreneurs may also draw novel analogical or metaphorical comparisons in relation to a new venture (e.g., Baker & Nelson, 2005). This kind of induction is known as an alignment-first model as entrepreneurs discursively align the source and target, and elaborate the comparison, before any likely inferences can be drawn from the source to the target (e.g., Fauconnier, 1997; Gentner et al., 2001). Alignment-first models are creative and may deliver emergent inferences that, when evaluated and verified in relation to the target of a novel industry, may turn out to be credible and useful (Cornelissen, 2005; Sternberg, 2004). In addition, we recognise throughout the manuscript that such analogies or metaphors may give meaning in an everyday sense. At times these analogies or metaphors may have a personal resonance for an entrepreneur with her/his identity being invested in the (analogically or metaphorically) imagined venture. Analogies and metaphors may also inspire others and add colour and vibrancy to a venture opportunity. The examples mentioned in the paper try to illustrate this, and show that far from being exact or compact (scientific) descriptions,

analogies and metaphors are broad interpretive frames that provide meaning for the entrepreneurs and relevant others.

Par 13. We do not claim that analogies and metaphors are the prime means for gaining legitimacy (and apologies if it came across that way). They are an important source of meaning and common understanding in the initial stages of a venture (exploration, planning and launch). In these early stages our starting assumption is that entrepreneurs are likely to use analogical and metaphorical reasoning to create the opportunity for new ventures and to set these apart from what already exists while locating their ideas within stakeholders' existing understandings in order to gain acceptance and support (Hargadon & Douglas, 2001; Santos & Eisenhardt, 2009). After the launch, and when the venture achieves a turnover and early growth as indicators of its profit-making ability (Hite & Hesterley, 2001; Zimmerman & Zeitz, 2002), entrepreneurs generally become less reliant on inductive reasoning. Instead, they may shift to more calculated and literal reasoning that is based on direct experiences and the performance of the new venture in its industry (Aldrich & Fiol, 1994; Hargadon & Douglas, 2001; Hill & Levenhagen, 1995). We have also included published examples from ventures in high-tech industries (Santos & Eisenhardt, 2009) to illustrate the main arguments and the propositions. These examples work well, we believe, in giving ecological validity to our arguments about the use of analogies and metaphors in entrepreneurial sensemaking.

Par 14. We fully agree with this point, and draw upon Goodman and Weick to focus on inductive reasoning (in language), consistent with our theoretical positioning within sensemaking.

Par 15-16. As mentioned before (par 1-4 above), we highlight the role of analogies and metaphors, as part of sensemaking. On pages 11-12 we refer to how analogies and metaphors give structure, allowing entrepreneurs to make sense of puzzling or unfamiliar situations (e.g., Gioia, 1986; Gioia et al., 1994), and produce links to action by virtue of the inferences for action that they evoke (e.g., Gioia, 1986; Weick, 1995). Besides structuring situations into an understandable format, analogies and metaphors also socially justify decisions and actions to others (Creed et al., 2002) by validating some accounts and discrediting or pre-empting others (e.g., Rindova et al., 2004; Weick et al., 2005).

Par 17. In line our theoretical position (sensemaking and social constructivism), we have revised the text to use language consistent with this position.

Par 18. In response to this point, we have added the language of institutional theory early on in the manuscript on pages 9 and 13 to highlight that the language that entrepreneurs use from the start is likely to be sensitive to the language and expectations of others. In line with our above comment (par

7) we believe that bridging these two literatures and the theoretical vocabulary associated with them is possible.

Par 19. Thank you also for this comment. We have tried to revise our process theory in such a way that we develop a parsimonious formulation of when and how entrepreneurs use analogies or metaphors, whilst speaking, to make sense about novel ventures to different stakeholders. Specifically, the use of analogies or metaphors in relation to new ventures is, we argue, conditioned by the degree to which an entrepreneur has had previous experiences in, and has learnt about, the same or similar industries in which the new venture will be based (Shane, 2000, 2003). It is also conditioned by the activation of social pressures to demonstrate the predictability and legitimacy of a venture to stakeholders (Aldrich & Fiol, 1994; Lounsbury & Glynn, 2001). These two determinants influence over time the extent to which and how an entrepreneur uses analogical or metaphorical reasoning during the initial stages of exploring ideas, and of planning and launching a venture. We develop propositions to distil the main arguments. The propositions incorporate to a greater extent than before the interaction with stakeholders (in the form of activated social pressures and stakeholder feedback), making it a more interactive model, whilst maintaining the focus on the same dependent variable (i.e., the use of analogies or metaphors in entrepreneurial sensemaking). In this way we hope to have tightened the theorizing in the manuscript.

Par 20. We have tried to make the front end more concise without compromising on a clear articulation of our theoretical position (sensemaking) as a starting point for our process theory. We also fully agree with your pragmatic view of theory, which indeed is the image that we referred to on pages 9-10.

Par 21-22. Thank you again for your positive reactions to our manuscript and for your very constructive comments. They have certainly helped again a great deal in terms of positioning and clarifying our theorising. We sincerely hope that you like the changes we have made to the manuscript.

### **Letter to Reviewer #3**

Thank you for another set of detailed and supportive comments. Below, we respond to your comments and suggestions in the order they appeared in your review.

1-2. Thank you for your positive response to the manuscript.

3. Thank you also for this comment. We have rewritten the main arguments in the text to arrive at a parsimonious formulation that connects two sets of determinants (the applicability of prior entrepreneurial experience, and the motivation to resolve uncertainty and acquire cognitive legitimacy for ventures) and the same dependent variable of entrepreneurial sensemaking. We have also revised the formulation of these propositions as the formal distillation of the arguments.

4-5. Following your comments, we have addressed the relationship between language and action in various places in the manuscript. We have clarified our theoretical position of sensemaking (page 7) which is defined as an act of turning circumstances “into a situation that is comprehended explicitly in words and that serves as a springboard to action” (Taylor & Van Every, 2000: 40, see also Weick et al., 2005: 409). This position implies that the world does not present itself in a direct or “raw form”, but entrepreneurs actively construct it, using available linguistic frames including pre-fabricated vocabularies (Weber, 2005) that become elaborated in a coherent way, thus shaping thinking whilst speaking (Figure 1). The images that entrepreneurs articulate in words as mentioned may be closely related to actions or physical resources (see the above point). In addition, even whilst such images may allow for different interpretations, they may nonetheless guide and constrain the actions that are open to entrepreneurs (in other words, sensemaking through words “is a springboard to action”). On pages 23-24, we refer to the example of entrepreneurial sensemaking in the case of Secret, a venture built around a security product in the context of digital communications, which guided decisions such as on which activities to pursue (Santos & Eisenhardt, 2009: 650). Hence, we assume consistent with our theoretical position that there *is* a relationship between language and action – this is not one of direct correspondence but verbally constructed realities guide decisions and in a social context raise expectations about appropriate behaviours. Baker et al. (2003) also illustrate this point within their observation that in interactions with employees, entrepreneurs added analogies or metaphors (e.g., of the venture organization as a “family”) that they had “made up on the fly to make their fledgling firms seem comfortable and normal – that is, legitimate – to potential employees”. However, in turn, such social constructions “became part of employee expectations and the emerging culture of the organization after the people [had] joined the firm” (Baker et al., 2003: 263). The implication is that entrepreneurs have of course some space to manoeuvre in terms of what they would *do* in line with the entailments of, for example, a family metaphor; but they are influenced and constrained in this respect. Actions that fall outside of the metaphorical frame would be more difficult and would highlight a crack between rhetoric and reality (Zbaracki, 1998; page 631) – similar to, following your example, the (actual) capabilities of search engines are inconsistent with the expectations raised about these sites through framing.

6. Thank you also for this comment. We fully agree with you. The cognitive tradition that we criticize involves a computational image of information processing (which forms the basis for the majority of

cognitive research in entrepreneurship). In the words of Bruner this image considers cognition as 'reproductive' in that it emphasizes how the contents of cognition (at the individual level) reflect, distort or otherwise mirror the world (e.g., Bruner & Feldman, 1990). This is a different image of cognition from the one articulated in, for example, enactive or sensemaking traditions (elaborated by Ocasio, 1997) where cognition is often considered as 'productive' in that it may impose not only structure but also direction on experience (see also Fiol (2002) and Lant (2002) for these distinctions). The latter traditions connect with our own definition of sensemaking which highlights the social context in which entrepreneurs through inductive reasoning can imagine or create novel opportunities that surpass their past experiences (Hill & Levenhagen, 1995; Weick, 1995). In other words, through such reasoning, entrepreneurs verbally create (or bring forth) a hypothetical world in which they highlight the opportunity for a novel venture (page 10). Following your comment, we have revised the section on sensemaking so that our theoretical position is more carefully introduced in relation to the cognitive tradition in entrepreneurship. We also better highlight how sensemaking bridges the cognitive and institutional traditions in entrepreneurship (pages 6-9). On pages 9-10 we have clarified our basic assumptions (i.e., "models of man") regarding individual entrepreneurs and their sensemaking in social contexts surrounding new venture creation.

7. We have added the language of institutional theory on pages 9 and 13 to highlight that the language that entrepreneurs use from the start is likely to be sensitive to the language and expectations of others. The section on pages 20-26 has also been rewritten to highlight the impact of multiple stakeholder audiences on entrepreneurs' sensemaking. The broader range and diversity of stakeholders that entrepreneurs speak to may activate pressures to make the venture understood and legitimate in the eyes of these relevant others (Hannan et al., 2007). Entrepreneurs will be motivated to resolve this uncertainty and to adapt their reasoning in such a way that they demonstrate efficacy. They may be prompted to elaborate or to replace the image or scene for the novel venture in an attempt to explain it to stakeholders. They may also be triggered to adapt their sensemaking in such a way that their accounts make direct references to implications for growth (Baum & Locke, 2004; Baron & Markman, 2003; Chen et al., 2009). The section on pages 20-26 outlines when and how entrepreneurs are likely to adapt their sensemaking whilst interacting with different stakeholders. We also give examples of when and how entrepreneurs reinforce, adapt or replace the initially induced image or scene of the venture depending on the feedback of others, and in response to stakeholder perceptions of the predictability and cognitive legitimacy of their ventures. On pages 24-25, we also elaborate how through analogies and metaphors (as category inclusion statements) entrepreneurs are able to gain legitimacy for their ventures. This theory elaboration builds on the classic work of Douglas (1986) and the more recent advances in Hannan et al. (2007) but, importantly, it adds a specific theoretical mechanism. Hannan et al. (2007) recently argued that the grounds for legitimacy stem from the degree to which a venture (or indeed any other organization) is seen by a stakeholder

audience as a default or prototypical member of an existing category of understanding. This argument is akin to Glucksberg's account of analogies and metaphors as category-inclusion statements in which a new venture such as Magic (which is discussed in the paper) is positioned as a central or prototypical instance of novel, ad hoc constructed categories such as on-line shopping (Glucksberg et al., 1997; Gentner et al., 2001). As a category-inclusion statement, potential categories are generated or invoked from the source of the comparison (e.g., offline shopping), while sets of modifiable dimensions are simultaneously identified in the topic (e.g., self-service shopping on the web). The interpretation of the legitimacy of the analogy or metaphor is thus, we argue, a kind of negotiation between the category of understanding prototypically associated with the source and the dimensions of the described target. If the target is indeed judged by stakeholders to be a prototypical member of the ad hoc constituted category (i.e., online shopping), then the comparison is more likely to confer legitimacy. Thank you again for this particular set of comments and we hope that our revisions have satisfactorily addressed these issues.

8. The second determinant which we previously labelled as effectance has been rewritten in the language of institutional theory (uncertainty/predictability and cognitive legitimacy). This, we feel, is more consistent with our overall approach. It also makes this section of the manuscript (pages 20-26) more accessible. Furthermore, one important boundary condition in the revised manuscript is that we focus on the initial stages of a venture (exploration, planning and launch) as the context for our theorizing. The reason being that in these early stages entrepreneurs are likely to use analogical and metaphorical reasoning to create the opportunity for new ventures and to set these apart from what already exists while locating their ideas within stakeholders' existing understandings in order to gain acceptance and support (Hargadon & Douglas, 2001; Santos & Eisenhardt, 2009). After the launch, and when the venture achieves a turnover and early growth as indicators of its profit-making ability (Hite & Hesterley, 2001; Zimmerman & Zeitz, 2002), entrepreneurs generally become less reliant on inductive reasoning. Instead, they may shift to more calculated reasoning that is based on direct experiences and the performance of the new venture in its industry (Aldrich & Fiol, 1994; Hargadon & Douglas, 2001; Hill & Levenhagen, 1995). This has changed the initial timeline around the pressures for effectance. It still assumes that pressures for demonstrating the predictability and legitimacy of a venture may be low when an entrepreneur is simply exploring an idea and only tentatively committed. But we now also recognise that such pressures may be activated from the start (see also comment 7 above). On page 24, we discuss the example of Haven (Santos & Eisenhardt, 2009). Haven's founder had stumbled upon the nascent market of online marketplaces. He personally valued egalitarianism and fused these values into an identity for the venture using the metaphorical frame of "community", which led to an emphasis on how "friends" could connect, share information and trade in a "safe neighborhood" (Santos & Eisenhardt, 2009: 651). Although this identity was clear and understood within Haven itself, the team experienced some difficulties in explaining this to

prospective customers. They thus decided to replace the community image with a more factual account of the venture's existence based on a balanced, fair marketplace for buyers and sellers. This approach failed, however, and led to a return to the "community identity", which they subsequently emphasized through the dissemination of a romantic and personal (albeit fictitious) story about the founding of the venture. In this case, given the opportunity that was spotted early on and the identity being invested in the venture, the pressure for predictability and legitimacy may have been activated from the start. These pressures became even higher at the launch, which led to the misstep of changing the (metaphorical) framing of the venture.

Thank you again for all your suggestions and comments. We hope you appreciate the specific changes we have made in response to these comments and that overall you feel that the main arguments and contribution are now much stronger as a result.