FROM THE GROUND TO CORE ASSUMPTIONS: A REFLECTIVE EXAMINATION OF PERSPECTIVE VERSUS STRUCTURE IN IS THEORIZING AND WRITING

Complete Research

Simpson, Jason, University of New South Wales, Sydney, Australia,
  jason.simpson@unsw.edu.au

Abstract

Evaluations of theoretical contributions in IS tend to be partial in that the decision as to whether or not a particular work constitutes a contribution rests almost entirely on well-established structures. While these structures allow for progression, they also allow for the muting of perspectives (that could be equally important theoretical contributions) that may only be realized by non-conformance. Furthermore, core ontological and epistemological assumptions should arguably be of core interest when assessing theoretical contribution, as going from the ground to core assumptions allows for even more critical analyses of underlying processes and conceptualizations; however, doing so normally requires more space than is typically allowed. This necessitates a temporary suspension of traditional structures in order to critically examine overall logic. This paper allows for this examination by presenting a reflective piece in the form of a hypothetical paper that focuses on decision making in IS. The hypothetical paper offers a tool for theorizing in IS by giving a specific example of how one would go from the ground to core assumptions on a particular topic. This paper then concludes by reflecting on the hypothetical paper and raises the question: at what point do our rules defeat the purpose?

Keywords: Assumptions, Decision Making, Reflection, Relationality, Perspective, Structure, Theorizing.

1 Setting the Stage

There have been several calls in the IS literature to develop original IS theories (King and Lyytinen, 2006), re-examine the usefulness of appropriated theories in IS (Simpson et al., 2013), and to better theorize the IT artefact (Orlikowski and Iacono, 2001). The field is arguably moving forward in response to these calls, as recent literature has proposed a framework that potentially allows for better design of IT and IS artefacts while simultaneously extracting theory (Gregor et al., 2013), and other literature has even begun to lay the foundations for performative theorizing with respect to digital artefact design (Kuk and Road, 2013) as well as nature (Utesheva et al., 2012). However, the question still remains as to what exactly constitutes a valid or meaningful theoretical contribution, while simultaneously the theoretical contribution tends to be a leading point of discussion in journal reviews, conference feedback, thesis examinations, PhD proposals, etc. This should be a point of serious concern, for if a work cannot pass the various hurdles of the undefined theoretical contribution it will never gain recognition regardless of how logical the argument, the potential value created for the reader, or future theoretical contributions for which said work could be a catalyst.

While there are many hurdles to overcome on the way to acknowledgement of a theoretical contribution, the most obvious is whether or not a work conforms to well-established structures (to clarify, “structures” refers to any existing validity or contribution criteria). For example, how well
does the work fill a literature gap, can all key points in the work be related to specific IS examples, is there a resulting framework or set of propositions, what truth claims are being made, etc.? Without these structures a researcher may be told to try again once the work can conform to these structures. But what if the literature gap can be filled inductively? What if the theory does not beg the question by relying on all key points having already been written in IS? What if questions, logic, and feedback are the quickest way from point A to point B rather than assuming we already know the path? Perhaps the best approach may not necessarily be a formal definition of contribution, but rather classifying contributions under different types, with a possible type being that which resets all existing forms of conceptualization (even if it meets no existing validity or contribution criteria). This paper suggests that perspective is an often neglected type of theoretical contribution, as it is arguably what we are aiming to give researchers and practitioners – without it, words on a page serve no purpose. Furthermore, an even more specific perspective is one that serves as a reset-type perspective in that it causes the researcher to question all existing assumptions and theories that they work with. One way to provide this in a single work is to write from grounded topics all the way to core assumptions. Indeed, several IS authors have highlighted the need to bring forward, explicate, and discuss ontological and/or epistemological assumptions in order to more critically assess research outcomes (Orlikowski and Baroudi, 1991), the meaning and worth of various conceptualizations of knowledge and thus theoretical strength (Schultze and Leidner, 2002), or the very nature of information itself (Boell and Cecez-Kecmanovic, 2012). While these works indeed provide valuable perspective within established publication structures and boundaries, the scope of the perspective is constrained – in other words, what if the goal of a paper was to examine an even ‘bigger picture’? What if one wanted to explicate all of the logical steps from a grounded topic (topics that are dealt with everyday such as information, decisions, etc.) all the way to core assumptions (assumptions about reality and knowledge); what would it look like? What if the point was not to produce a valid or rigorous piece of research, but rather a valid and rigorous piece of logic in order to pose the potential for future research (cf. relativity or string theory in physics)? Furthermore, what if the ontological and epistemological assumptions themselves were ‘bleeding edge’ and therefore fall into the ‘key points in IS trap’ mentioned earlier? If one were to do this within existing structures there is simply not enough space. However, it may be possible to deal with these concerns and begin exploring the bigger picture and not violate any of the unwritten rules of science. One way to do this would be to temporarily suspend traditional structures and examine the ground-to-core-assumptions process on a purely logical basis. This is normally not allowed, and therefore this paper will present a hypothetical paper for the purpose of examining and critiquing the process rather than presenting any truth claims. Indeed, anecdote and hypothetical situations are very important in the theorizing process (cf. Weick, 1995), and therefore this paper aims to begin a discussion about possible alternative avenues of approach in IS theorizing.

The hypothetical paper is entitled: “Decision Making and Relationships in IS: A Relationality Perspective”. This paper is written in a storied fashion as the author simply follows a trail of logic, beginning with a grounded topic and working all the way up to core assumptions, addressing the classic concerns that typically arise at each step. In section 5, the author reviews the logic trail, bringing all points together, which allows the reader to re-examine it if needed. Again, the point here is to critique the logic rather than the structure, for if our resulting theories are to be considered valid it only makes sense that they could pass basic logic tests or thought experiments. Does this author make a theoretical contribution or not? If so, how would one classify the contribution? If not, what are the exact reasons other than structure?

2  Introduction (Begin Hypothetical Paper)

“Look at things right under your nose as if you’ve never seen them before, then proceed from there.” (Bloom, 2012, p. 16, The second rule of science)
The importance of decision making in IS research is so well established that most IS researchers would be hard pressed to find literature within the field that did not deal with decision making in one form or another; and should this be at all surprising in our field? Indeed, the word information has its roots in the word inform, and it could be argued that there is no other purpose for being informed if not to make a decision about something at some point in time.

Furthermore, decision making in IS has historically been largely characterized around the notion of rationality, where decisions can be rational (Arnott, 2006), irrational (ibid), non-rational (Chatterjee et al., 2009), or some other opposite or derivative of rational. In most classical IS decision making scenarios, it is assumed that an individual or group aims to make correct or better decisions based largely on the information to which they are privy. However, most literature takes for granted what a decision actually is or alternatives as to what it might be. Does a decision necessarily have to be viewed as something related to rationality? Or perhaps for a more interesting question, if one person’s rational decision can be irrational to another, and vice versa, what exactly might help to describe and explain the difference in views?

Many of these questions have indeed been asked and addressed at length outside of IS by theories dealing with the concept of “preferred self” and identity; theories that express these concepts and decision making outcomes in the form of relationships. Personal construct theory in psychology (e.g. Kelly, 1955a, 1955b; Fransella, 2003), terror management theory in social psychology (Greenberg et al., 1986, 1990; Rosenblatt et al., 1989), as well as other theories in various bodies of literature (e.g. relationship marketing, inter-personal relationship literature), suggest the possibility that all decisions may be made based on a person’s identity or preferred self (cf. Beach, 2010) and the relationships that compose these concepts. This calls into question the presumption of a rational-irrational (or non-rational) dichotomy, and suggests an altogether different sensibility with respect to decision making, as the idea of what is ‘rational’ or ‘irrational’ (e.g. what IS/IT a person adopts or uses) may simply be a matter of an individual’s goals or what they ultimately hope to become – something that this paper argues may be both human and non-human centric simultaneously.

IS literature is beginning to pick up on this pattern, as identity and its tangentially related theories on choice and affordance are slowly being incorporated into the IS literature as possible explanations for behaviour and decisions about technology usage (cf. Stein et al., 2012). The argument in this literature is that a person will choose to use an IS/IT that allows that person to realize or express an identity or preferred self. Thus, with respect to decision making about an IS/IT, the identity literature suggests an alternative ‘what’ (identity) as well as ‘how’ (e.g. Stein et al., 2012, narrative and renegotiation). However, the IS literature has failed to thoroughly explore the possible ‘why’ behind techno-identity construal – specifically, the explicit relationships with the technologies, people, social norms, etc., that would allow for the understanding of why a certain identity is being enacted in the first place – as well as why specific technologies are so important to people.

This paper argues the importance of these relationships in understanding both decision making and identity, as well as how an understanding of the relationships could provide an alternative view of the decision making process and the often associated notion of rationality, and attempts to do so without falling back more well-established assumptions (the key distinction between this paper and other literature that has examined the notion of rationality in IS, e.g. Chatterjee et al. (2009)). Furthermore, this paper illustrates how this lens may be useful in shedding light on many practical IS problems in IS/IT adoption, and how questioning certain assumptions (and incorporating other concepts such as time) may actually help increase our predictive capacity.

This paper begins by examining how extant IS literature typically characterises decision making, and then illustrates many of the challenges and limitations that come with adhering solely to these views. Other bodies of literature are then presented that actively engage with the concept of identity as well as the relationships that go into construing identity. This illustrates how an understanding of the relationships may be the key to any notion of understanding related phenomena or predicting in this
literature. Finally, the paper directly addresses the notion of rationality in decision making, how this notion could be conceptualized differently, and how this alternative conceptualization stands not to further confuse, but rather to help both IS research and practice.

3 Decision Making in IS

There has been extensive research on the topic of decision making in information systems. Arguably, the most debated assumption within the topic is whether or not, or the degree to which, human beings are rational as they seek to make the most correct or optimal decision moving towards some organizational or societal goal. Within these debates, deviation from that goal can be seen as irrational (Pavlou, 2002; Gefen et al., 2003; Arnott, 2006; Parameswaran and Whinston, 2007; Kim et al., 2009;), non-rational (Chatterjee et al., 2009), uncontrollable behaviour (Wang et al., 2006; Dinev and Hu, 2007), or any other concept that might denote an incorrect or suboptimal decision. While some IS literature, such as identity studies (e.g. Stein et al., 2012), has begun to examine alternatives to the mainstream notion, this literature stops short of addressing the relationships behind identity construal. In this section the core themes of both sets of literature are examined in order to further seed the argument for an understanding of relationships in IS decision making contexts.

The IS subfield that has historically embodied the notion of rationality and correct or incorrect decisions in decision making (there are recent exceptions), is the area of decision support systems (DSS), where “the objective of a DSS project is to improve the decision process and outcome for a manager making an important decision” (Arnott, 2006, p.55). Irrationality or non-rationality is typically seen as deviation from the correct decision, and one way this has been conceptualized is “cognitive bias”. Consequently, much research has focused on debiasing, which is the “procedure for reducing or eliminating biases from the cognitive strategies of a decision-maker” (ibid, p. 62). Underlying much of this research is the notion that if the IS/IT can give the decision maker enough relevant information, and remove any biases from the decision making process, the decision maker will make fewer irrational, non-rational, incorrect, suboptimal, etc., decisions.

There are indeed many other IS subfields that assume rationality as the foundation of decision making without ever questioning it. For example, in the innovation literature, if people are innovating, for what reason are they innovating (both individuals and the company)? If people fight the process of innovation or the outcomes of innovation, for what reason are they fighting? Even if the latter is answered by the all too common fear of, or resistance to, change (e.g. Ellen and Bearden, 1991), why do people fear change? The IS strategy literature (e.g. Chen et al., 2010) assumes a very definitive ‘point B’ or strategic vision, and in order to have strategic alignment, organizations must ensure that managers implement that vision down to the lowest level employee. However, much of this literature ignores the classic principle-agent problem outright, or if the problem is considered then the literature still tends to ignore the issue of IS/IT personalization and how this may be leading industry to the point where personal choice and power could override any ability of the firm to control the problem (Simpson et al., 2013) and thus correct decision making throughout the hierarchy. Indeed, this problem can also be viewed as goal misalignment, the importance of which will be discussed shortly.

Given many of the possible limitations of viewing decisions and IS/IT usage solely through a rationality lens, some IS literature has begun to suggest an alternative, as even the DSS literature is beginning to question the nature of a decision in IS contexts (e.g. Lederman and Johnston, 2011). Identity and its tangentially related theories on choice and affordance are slowly being incorporated into the IS literature as an explanation for behaviour, and decisions about IS/IT usage specifically. At least one identity study has explicitly illustrated how IS/IT serves as a way to express identity and define the self and how this affordance leads to use (Stein et al., 2012). This view is quite different from the literature in the preceding paragraph, as the correct decision here is one that affords identity expression.
Works incorporating structuration theory and legitimation further illustrate the importance of identity and social norms in IS/IT adoption scenarios, how these concepts can be used in practice to increase the likelihood of IS/IT adoption, and how if this had not been done the specific IS most likely would have been flat out rejected (e.g. Hussain et al., 2004). In Hussain et al. (2004), the decision to adopt was only made after the project manager ensured that the IS could be identified with by the majority of the organization, which was explicitly operationalized by building relationships between existing social norms, identities, and concepts related to the IS before any talk of the IS itself was introduced. This emerging perspective accounts for outcomes as a direct result of a constant renegotiation of identity and its expression and suggests the possibility that decisions made about adoption, use, or otherwise, hinge on identity expression through possible action involving the IS/IT, rather than some characteristic of the IS/IT.

Therefore, the identity related literature has provided an alternative to the rationality view of decision making with respect to ‘what’ and ‘how’, but what about the ‘why’? If an individual has construed an identity around a “landmark” technology (Stein et al., 2012), for example, why has this identity been construed instead of another? If one takes away the need to survive and observes how individuals behave in virtual worlds with respect to purely digital artefacts and posits that all action in these environments may be based on identity expression (cf. Martin, 2008), why is that particular identity expressed, and why is the particular digital artefact that has been chosen in this expression important to the person?

The possible key to these questions, understanding the ‘other side’ of identity, as well as using identity in any predictive capacity in decisions about IS/IT, may lie in understanding the relationships that go into construing that identity. Indeed, by ignoring the relationships, identity and meaning may become a blackbox no different than the constructs from which they seek to differentiate. Next, this paper explores other bodies of literature and theories outside of IS where the importance of relationships in understanding the ‘core’ of humans, just like decisions in IS, is so uncontested that it is simply what the researchers in these areas do. Furthermore, much of this literature begins to explain why these relationships are so important to understanding identities (many construed around artefacts), and are so important in people’s lives and the decisions that they make.

4 An Identity-Relationship Based View of Decision Making

Areas of business research outside of IS, such as marketing, have picked up on the usefulness of relationships in understanding and predicting consumer brand decisions (e.g. Fournier, 1998). Research in psychology, social psychology, and inter-personal relationships, take this one step further and suggest that relationships and the resulting human ‘core’ (superordinate constructs, worldview, and identity, respectively) may be the root of all human action and thus every decision that a person makes. While theories such as personal construct theory (PCT) and terror management theory (TMT) highlight the importance of understanding the human core, as well as why it may be extremely rigid (Simpson et al., 2013), they equally highlight the importance of relationships, as that core is described and translated through the relationships. This section discusses these areas of research, highlighting the importance of relationships, and how their perspectives could translate over into decision making in, and about, IS/IT.

The theme most common among PCT, TMT, and inter-personal relationship literature (as interpreted by the author), is that each is primarily concerned with the human ‘core’. This core, when compared across the literature, for all intents and purposes, can be conceptualized as identity, where identity is “the totality of one’s self-construal, in which how one construes oneself in the present expresses the continuity between how one construes oneself as one was in the past and how one construes oneself as one aspires to be in the future” (Weinreich, 1986, p. 317).
Furthermore, each of these areas places much emphasis on the future aspiration or goal oriented (cf. Lazarus, 2006; Martin and Dowson, 2009; Wentzel, 1999) portion of identity, as this serves as the primary predictor of future behaviour or intentions within this literature. These goals are based on a basic identity or preferred self (cf. Kelly, 1955a, 1955b; Butler, 2006), and some literature has posited that in any given situation humans will simply do that which, in their mind, will lead to the preferred self (Kelly, 1955a; Kelly, 1955b) and will attempt to control against anything that detracts from it (Beach, 2010). However, identity is not static and is constantly being renegotiated (Stein et al., 2012). This performative process or constant becoming through a feedback loop – where an individual begins with a preferred self, which leads to goal setting, which leads to action (mental or physical), which leads to interaction (mental or physical), which leads to an outcome that provides feedback (mental or physical), which renegotiates the preferred self – is either made explicit (e.g. gender and identity studies) or is illustrated by the nature of the theory (e.g. re-construal in PCT (cf. Fransella, 2003a). Based on the core themes and patterns in these bodies of literature, the decision making process could be re-conceptualized as depicted in Figure 1.

![Figure 1. Decisions viewed as renegotiation of preferred self through feedback loop.](image)

Each time this process is re-enacted an individual is arguably strengthening or weakening (depending on the feedback) relationships with certain concepts, objects, or people. Understanding exactly what relationships ‘look like’ – with respect to history with, feelings about, narratives about, values attached to, etc., these concepts, objects, or people – is precisely what each of these areas focuses on through its respective research. This allows for the understanding of what it means for someone to be an “emergency worker” (McFarlane and Bookless, 2001), a “stutterer” (Fransella, 2003b), or an “excellent systems analyst” (Hunter, 1993), and why certain identities and relationships are important to these people. Without the explication of the relationships that make up these identities, the words attached to the identities may be very limited in meaning.

PCT provides a useful technique known as “laddering” for explicating these relationships as well as the associated identities. Furthermore, this technique illustrates the inherently problematic nature of viewing decision making only through the lens of rationality. Consider the previously mentioned construct of “uncontrollable behaviour” found in the precursors for the technology acceptance model, and compare it with an example of the same found in the PCT literature:

> “Jim came down the stairs one morning, saw that the table was dusty and reacted by hitting his partner. He presented this behaviour as being incapable of explanation. Anger just came over him; it happened for no reason and he was unable to control it.” (Cummins, 2003, p. 87)

Presumably, most would consider this completely irrational and/or unacceptable behaviour or that this would without question be the incorrect or suboptimal decision; however, would this necessarily be so? Figure 2 illustrates the outcome of using the laddering technique to interview Jim about his action.
The ladder is composed of dichotomous constructs which, according to PCT, are not only the source of all action as humans attempt to anticipate events but also make up all human meaning and understanding (cf. Kelly, 1955a, the Basic Postulate and 11 associated corollaries). On this ladder, Jim has a preferred pole or self (the right side). By using this technique the interviewer has determined that Jim has an identity (or in PCT terms, a superordinate construct) as a clean/organized person, that this identity helps give life its meaning, and that the dusty table actually represents an attack on life itself. One must then ask themselves, is the decision about the object, and ultimately his action, still not rational/correct if this is about an attack on life itself? Furthermore, would the researcher have understood anything about this decision if the researcher had simply taken the meaning of surface constructs for granted? This example also illustrates how a part of identity can be construed around the characteristics of one artefact (a clean table) and threatened by another (a dusty table). This is no doubt of relevance to IS adoption or design researchers, as both areas seek to understand IS or IT artefact characteristics and how these characteristics impact acceptance or rejection.

TMT research is also concerned with identities and how relationships with cultural artefacts, for example, compose identities and vice versa. Furthermore, being ‘incorrect’ in TMT carries consequences in that “any experience that suggests that our cultural drama is wrong, or that other versions of reality are equally valid, threatens self-esteem and is therefore a source of anxiety. Consequently, such experiences motivate us to eliminate the threat; by so doing, we can sustain faith in the basis of our self-esteem” (Greenberg et al., 1986, p. 199). Part of maintaining the cultural drama consists of the creation, adoption, and usage of cultural symbols and artefacts “e.g., in the United States, government officials, churches, monuments, flags, currency, religious and historical artifacts” (ibid, p.199). Since others have already established the possibility that technology can indeed be conceptualized as both a cultural artefact as well as an actor (e.g. Latour, 2005), and there is a “tendency of people to respond with hostility and disdain toward those who are different from themselves” (Greenberg et al., 1990, p. 308), it stands to reason that all of the above could provide significant insight into decision making scenarios in and about IS/IT. Furthermore, by viewing IS or IT artefacts as social actors, it is necessarily implied that they have goals.

Goal alignment between individuals is commonly considered by the inter-personal relationship literature as the most important predictor of future relationship success or relationship failure (e.g. Elliot, 2006), or the concept from which success or failure is implied, future interaction (e.g. Greer, 2000). Here, if individuals or groups have drastically differing goals (plans to achieve the preferred self), all else being equal, they will sever those relationships unless there are power structures in place (e.g. rigid social norms, people with whom they are interdependent, conflicting identities, sources of income, etc.) that hinder them from doing so. This misalignment generally results in the ‘hindered’ person becoming angry, resentful, and generally uncooperative (Lewis, 1998). Indeed, Lapointe and Rivard (2007) report on IS-individual goal misalignment which resulted in professional invalidation and loss of power, where the individual simply stopped “using it, even though he perceived the system as useful and easy to use” (p. 101).
This lens could potentially be applied to any IS/IT adoption/usage decision scenario in which one attempts to 1) uncover relationships and identities at work when an individual has strong reactions to IS or IT 2) consider possible reactions before the IS/IT is ever introduced, and 3) do one or both when in the design stage – rather than assume any correct decision or associated rationality. Consider this possible IS scenario:

Bob has been working for Corporation X for 10 years implementing a service oriented architecture composed of open source web services. He has been quite successful in the ‘open’ area of IS/IT. Bob firmly believes in open principles, and the related technologies have played a core role in his promotions. This has afforded him a successful career resulting in good financial status, stability, and the ability to support his growing family that he adores very much. Also, assume that a PCT based interview was performed and the researcher knows that these norms and the associated technologies are directly tied to all meaning in Bob’s life. One day Bob gets an email that states: “Dear Bob, we are going to implement vanilla ERP and will need to reengineer our business processes to fit the proprietary system. Please ensure that you begin to prep your folks up and down the chain. You’ll need to give them vision and training. We’re counting on you to help us make this work.”

What will Bob do? Is rationality still relevant? Also, do the relationships that higher ranking managers and executives in other departments, fellow senior managers, or subordinates have with the technology matter? Are they the same, different, or mixed? What decisions will be made by each of them based on the information about the IS with respect to relevance, quality, ease of use, likeability, functionality, affordances, and so on? Does Bob’s level of personal power matter? Will he attempt to strengthen some relationships and sever others in the wake of this event?

While these questions are left open ended as this is a conceptual paper, PCT offers a useful perspective here via one of its 11 corollaries, the “choice corollary”: “A person chooses for himself that alternative in a dichotomized construct through which he anticipates the greater possibility for extension and definition of his system” (Kelly, 1955a, p. 64). Again, while this is not empirical evidence of decision making in and about IS/IT, there is no denying that an alternative perspective to decision making in and about IS/IT is possible and that individual relationships with IS/IT do indeed matter.

Rationality and Relationality

Previous discussions have suggested the possibility that the answer to the question of “is a decision in IS, or about IS/IT, rational, irrational, or non-rational; correct or incorrect?” may be “both”, depending on an individual’s preferred self and relationships with the IS/IT. This section further expounds upon this idea by explaining and considering the assumption of relationality (cf. Kelly, 1955a; Latour and Woolgar, 1986; Law, 2004; Latour, 2005). Furthermore, examining decisions from this point of view necessarily rouses the debate around technological determinism versus technology-in-use; specifically, does the IS/IT and its characteristics determine who humans are, or do humans define themselves and then use/choose/adopt/etc. the technology that allows them to express that identity? Once again, the answer could possibly be both if one assumes relationality. This is a critical point as extant IS literature tends to assume one or the other, building out all theory and application from that assumption, which arguably could be the root of the practice-theory gap (cf. Straub and Ang, 2011).

A review of the logic thus far in this paper:

1. Decisions are largely viewed in IS through the lens of rationality which assumes goal alignment (or that goals should be aligned).
2. The principle-agent problem (goals are not aligned), combined with trends toward IS/IT personalization (allow for further misalignment) make the rationality assumption problematic.
3. As an alternative to the rationality lens, identity studies in IS suggest that individuals are more inclined to make decisions about IS/IT based on affordances, or how well the IS/IT allows for action resulting in expression of techno-identity, for example.

4. Literature outside of IS that actively engages with the concept of identity generally posits that all decisions may be made based on identity or preferred self.

5. Identity and resulting actions can only be fully understood by unearthing the underlying relationships; relationships that may constitute the totality of one’s consciousness and existence.

Based on this, there are at least three major implications:

1. People may not make decisions at all (at least in the ‘typical’ sense). There may simply only be interaction, renegotiation of preferred self based on feedback, set goals, repeat.

2. Therefore, whether something is rational or not depends on from where (cf. Latour, 2005) one is viewing the action.

3. Given 1 and 2, both realism and relativism hold, simultaneously. This is the key point, as most theories or theorizing papers are built from one side or the other of this dichotomy.

While the previous scenario with the fictitious character Bob touched on implication 2, this section further examines why this might be so as it is not enough to simply say that Bob has relationships with open technologies. Relationality is the final link in the chain of whys in this paper. Here, the reader is asked to simply consider relationality as one possible starting point in considering an alternative to decision making in and about IS/IT.

Relationality is the notion that the universe is integral (Kelly, 1955a), and that any ‘thing’ (person, place, concept, object, galaxy, emotion, etc.) only exists in relation to some other ‘thing’ (cf. Barad, 2007; Bloom, 2012). This can be ‘physical’ or ‘mental’, ‘real’ or ‘virtual’; it is all the same. Thus, based on this assumption, when one is speaking of anything one is necessarily speaking of relationships; failure to do so would mean to either speak of everything or to speak of nothing. Furthermore, this assumption implies that any notion of change can only happen through interaction or intra-action. If someone cannot or does not make a connection (and thus a relationship) with a new construct, that construct, as far as they are concerned, does not exist (cf. Kelly, 1955a, The Dichotomy Corollary).

The following illustrates the process of change – or a decision and its rationality – through the lens constructed thus far. Person A performs an action in front of person B. If a personal construct used by person A to inform person B of person A’s decision has no relationship to the personal constructs that person B normally associates with actions performed by person A (or there is no relationship to any of person B’s personal constructs), that decision will be seen by person B as non-rational or irrational. Now consider that person A manages to introduce ‘new’ or ‘foreign’ constructs that indeed line up in some way with person B’s preferred self and have only a very small relationship to the action in question; so small in fact that person B does not notice. This pattern could be repeated until person B’s preferred self has similar relationships with the original action of person A. Arguably, person A’s actions are no longer irrational or non-rational according to person B, rather, person B might begin performing those actions themselves (all else being equal).

However, this describes a one-way scenario. If at any point the actions of person A are perceived by person B as not aligning with person B’s preferred self, and person C is introduced, whose actions imply similar relationships and preferred self as person B, person B will arguably then begin interacting with person C as long as there is nothing which has power over person B that keeps them from doing so. Furthermore, if person A’s preferred self begins drifting significantly away from
Person B due to interactions with person D (someone person B does not interact with), person B (all else being equal) will begin severing relationships with person A and vice versa.

While these examples may seem oversimplified, they are doing nothing more than describing the essence of the study referenced in section 3 (Hussain et al., 2004) on IS adoption through building relationships with the IS through legitimation. One can make the narrative as complex or simplified as one would like; it is nevertheless the same pattern. This is another crucial point, as it illustrates precisely how two supposedly incommensurable paradigms can end up describing and explaining the exact same thing. However, if one were to simply subscribe to one view or the other, clarity might remain elusive.

Additionally, viewing change in this manner may allow for the rethinking of concepts such as persuasion, convincing, relevance, or even evidence. Given the line of argument, lens, and assumptions thus far, an action would never be rational or any opposite or derivative of rational; it would always be both, depending on from where one is viewing the action (cf. Latour, 2005). Furthermore, this means that the action could always be both at the same time with respect to all actors. As such, this has implications for the technological determinism (i.e. rational perspective) versus technology in use (i.e. far less rational perspective) dichotomy, which is prevalent in IS adoption and usage studies.

If one takes the above conclusions and asks: does technology determine who humans are, or do humans determine who they are and use the appropriate technology? One has to answer with “both”, as neither humans nor technology can exist without the other. This notion that technology and human beings co-create each other should be intuitive as well, since technology is what arguably allowed for the very evolution of humans in the first place, it requires humans to be created, and “nearly everything we do requires it” (Simpson et al., 2013, p. 7). While the idea of co-creation is certainly not new, the implications of the perspective within IS may have been overlooked. For example, if one considers the above perspective valid, then how would any adoption or usage study be complete without causal mechanisms and a thorough description of the environment and all actors involved? Furthermore, if nothing is static, all actors are co-creating each other, and both technological and human interaction are increasing at an exponential rate (cf. Kurzweil, 2005), then it stands to reason that all technology adoption and usage studies that do indeed incorporate both are still simply snapshots in time. Hence (and this is the most problematic of implications), these studies would provide the reader with a perspective that is both able to predict and yet not able to predict anything— the key to predictive power being time (predictive power would taper off in a not yet measured way). Therefore, if one does not consider both perspectives, along with time, then contemporary IS theories built upon these studies may have limited applicability or relevance.

As one moves from the more grounded topic of rationality in decision making to the slightly more abstract and semi-philosophical realm of determinism versus in-use, one can then take the aforementioned logic one step further up to the level of realism versus relativism to arrive at the root assumption leading to decision making. This is another dichotomy that can be dissolved if assuming relationality, and can be framed within the running theme of personal constructs. Take any random personal construct that one person might have. Assuming relationality, the construct only exists in relation to other things so it necessarily has to be real yet could still have meaning assigned to it by the person that is quite different than someone else. Assuming relationality, there is no contradiction. The construct is both ‘real’ and ‘made up’ at the same time. Whether or not others perceive it to be more or less ‘real’ is simply a matter of the degree to which there is inter-personal consensus around its meaning, which is a direct result of the number and strength of relationships between the construct and all else that exists in society. For example, the number 1 is just a symbol; it is not any more real than anything else one could conjure up on the spot to stand for another arbitrary ‘unit’ of energy, matter, structure, or form. However, it has allowed society to build the information systems discussed in this paper, so it is very real, but it also is not (cf. Bloom, 2012). The degree to which it is ‘real’ simply
depends on when and from where a person is viewing it. Beginning from this assumption, it is possible to work back down to decision making in which case all the aforementioned perspectives are pulled down as well. In other words, even the reality of any decision (or adoption and usage scenario) and the purported truth claims can be both true and false simultaneously.

By being persistent in addressing the ‘why’ behind each smaller argument, the final argument ends up addressing core assumptions. This persistence can be quite useful for IS researchers and practitioners, as beginning with something more grounded and laddering up to core assumptions can allow for a clearer picture of whatever it is one happens to be concerned with (decision making in and about IS/IT in this case) and thus allows for the examination, possible change, and re-alignment of underlying assumptions and views (cf. Kelly, 1955b; Fransella, 2003a). In more colloquial terms, one could ‘hit the reset button’. Whereas not doing this typically results in failure to consider any alternative, which ultimately hinders further knowledge, understanding, clarity, or innovative solutions (cf. ibid).

6 Conclusions (End of Hypothetical Paper)

Given the well-established assumption of the nature of a decision within the IS literature, many never stop to question this nature, how it might align with various ontological and epistemological assumptions, or the implications of doing so. When considering IS decision making in a DSS context, where one attempts to help managers make important decisions (e.g. Arnott, 2006), extant literature tends not only to background what a decision might be, but also the question of important to who, and why? DSS literature identifies a number of cognitive biases in an attempt to overcome them (ibid); however, if these biases are re-examined under the lens presented in this paper, that number could theoretically be infinite. Furthermore, this same logic holds for decisions about the IS/IT and whether or not to adopt or use it.

Matters are further complicated by the principle-agent problem combined with increasing personal power due to trends in IS/IT personalization (Simpson et al., 2013). Furthermore, this personalization will likely continue to be fuelled by the exponential nature of technology with respect to quantity, complexity, and configurability (cf. Kurzweil, 2005). By examining this further through a theoretical lens incorporating themes from personal construct theory, terror management theory, the interpersonal relationship literature, and identity literature, one can begin to see how it may be possible that as this complication increases, people will progressively move further away from forced goal alignment with respect to IS/IT, not closer to it. Will IS research continue to ignore this ever increasingly probable reality or deal with it head on? Indeed, the better approach may be one of orchestration and self-identification (cf. Feller et al., 2012) rather than command and control.

Relationality further illuminates the possibility of an alternative view to rationality, in that by taking this assumption (something only exists in relationship to something else) it is possible that a decision may have little to do with any pole of a dichotomy; all resulting action is both rational and non-rational; and any notion of a dichotomy with respect to determinism can be addressed through co-creation. From this perspective a decision is merely the action that is perceived as leading to the realization of the preferred self and any notion of being informed translates into being validated (Kelly, 1955a). Hence, in order to shift a person’s actions with respect to IS/IT, this can be accomplished by interaction and confrontation with both similar and contradictory relationships with the IS/IT (oscillation between poles (Vermeulen and Van den Akker, 2010)), with respect to the preferred self. This is better known in PCT as learning (cf. Kelly, 1955a, 1955b; Fransella, 2003a).

This paper has provided a reset-type perspective that could inform several areas of research at the fundamental level; specifically, alternatives to psychological acceptance of IT (Schwarz and Chin, 2007), theorizing the IT artefact (Orlikowski and Iacono, 2001), IS theory in general (King and Lyytinen, 2006), and IT as a social actor and thus interaction centric (Al-Natour and Benbasat, 2009). This paper highlighted the importance of acknowledging several realities that can exist simultaneously,
with the simultaneity aspect being the key contribution. Additionally, this paper has further theorised the nature of relationships that individuals have with IS/IT, the implications for organizations, and why understanding individual relationships with IS/IT is important. Finally, this paper illustrates why building theory from any pole of a dichotomous construct, or not accounting for causal mechanisms, rich descriptions / mapping, and time, can be extremely problematic if not completely impractical.

This paper is obviously not without limitations. The primary limitation is that the argument is purely conceptual and based on logic. None of the bodies of literature presented here were presented in their entirety. The paper simply attempted to extract what the author believed to be the core themes of each and examine those core themes from multiple angles in order to begin building an alternative theoretical view. This paper gave primacy to the ‘why’, by uncovering a pattern, while it tended to background the ‘how’ and ‘what’; however, this is also a key contribution as this is rarely done in IS. Finally, this view is still embryonic and this paper serves primarily as the foundation for building out that view.

PCT literature allows one to see how dichotomies can help us to understand the world but how they can also ultimately blind us to other possibilities and alternatives. Dichotomies are used to understand but we ultimately move past these dichotomies in order to understand anything beyond our current worldview. Therefore, as far as the inclusion of people or technology in IS research and how one or the other is supposedly problematic, the view presented here does not see either people or technology as the problem. They are the solution – both of them.

7 Reflection on Hypothetical Paper

This section reflects on the hypothetical paper to examine what the author did, what the author did not do, and why this may be important. While the purpose of the main paper is to spark discussions as to what constitutes a theoretical contribution, one way to view the hypothetical paper’s possible theoretical contribution is the contribution of a cognitive tool rather than an artefact type tool. Cognitive tools are arguably the point or purpose behind any scientific research, and thus to limit their numbers based on structures it to possibly limit ourselves as IS researchers.

In section 3, the author began with something that permeates IS literature: decision making. The author then characterized the relevant literature around the notion of rationality in order to establish the chain of logic. What the author did not do was provide a detailed account of the literature review process or review everything ever said about decision making in IS. The author then continued the same process by characterizing the ‘other side’ of the decision debate, which the author claimed to be identity, as well as the ‘other side’ of identity, which the author claimed to be relationships. The author finalized the chain of logic by addressing ontological, epistemological, and agential concerns (allowing for alignment of all topics and assumptions). As the author attempted to answer each of the concerns raised by digging deeper into the nature of the topic at hand, the author simply took the most contemporary explanations and concepts from each of the literatures that logically followed from the previous concern. The purpose of this was to challenge the reader’s assumptions, constructs that they work with, and generally all other things that may be related to their particular area, not to present truth claims. This paper seeks to find possible contribution in spite of any existing validity or contribution criteria.

While this is unorthodox in IS, a similar pattern exists, and is indeed allowed, in other disciplines. The hypothetical paper would be no different in nature than a paper that examined a theoretical physics problem, in that it would not get into the details of how and why a number is squared (for example), even though previous mathematicians did so in order to provide the tool. In this example both feed on each other; they are not mutually exclusive nor are they individually constituted. The reviewers of the abstract problem are certainly free to examine the underlying mathematical formulae and theory, while the mathematicians are free to disprove the abstract theory with lower level research. If the abstract
logic is flawed then we must explicitly show why the logic is flawed in order to dismiss the information. Just as with any math equation or other form of logic, the roots of all representative symbols must be found to dismiss it. $E=mc^2$ was not dismissed simply because the paper structure, validity or contribution criteria, etc., looked different from that of $1+1=2$.

Hence, if we question the author’s rigour in the hypothetical paper above, are we honestly questioning their rigour or the other disciplines’ rigour? Are we questioning their knowledge or our own? How is what we normally do different from what the author in the hypothetical paper is attempting to do? How does the purpose of these papers differ, and how does the purpose of both feed into the overall purpose?

Arguably, the overall purpose is perspective, as it is the fuel for any future innovation or improvement within academia or in practice. Without it, words and numbers are mere abstract symbols on a page. Furthermore, perspective (more specifically, in this case, a reset-type perspective) can be classified as a cognitive tool, which is markedly different from an artefact type tool in that cognitive tools “empower the learners to think more meaningfully and to assume ownership of their knowledge, rather than reproducing the teacher’s” (Jonassen, 1994, p. 5). A serious question we must ask ourselves is if we can effectively provide additional cognitive tools, then what difference does the shape or form make as long as it serves the purpose?

Abstract theoretical papers, or those that sacrifice structure in order to bring the developed perspective to the foreground, arguably provide researchers with the cognitive tools to unravel the increasingly complex nature of IS phenomena. Hence, the multiplicity of perspectives has the potential to provide both researchers and practitioners with a richer cognitive toolbox. This enhanced cognitive toolbox not only provides the capacity for IS researchers to better equip and deconstruct events, but also the ability to relate more IS concepts to a wider audience of students in the classroom. Consequently, if we disregard perspective papers in favour of structure, we run the risk of fundamentally limiting our cognitive tools and subsequently artificially restrict ourselves and the analysis that we can attain, becoming less prepared to deal with increasingly complex IS phenomena or to create new theories or ways of theorizing in IS. So, why would we want to limit our cognitive toolbox as IS researchers? As shown in the case above, the tool provided might not be a methodology or results, but rather a fresh way to approach a problem.

8 References

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