Everything is Relative, but Relative to What? Defining and Identifying Reference Points

Mark D. Yockey
University of South Dakota

Susan M. Kruml
Milliken University

Reference points are an integral part of many organizational practices and theories. In spite of their widespread use, there has been very little theory development on reference points themselves. We investigate and propose a general theory of reference points. First, we develop a definition of reference points. We then identify reference point dimensions and how they contribute to reference point selection. Lastly, we propose a model of reference point selection and suggest how several moderators may affect the process.

"Put your hand on a stove for a minute and it seems like an hour. Sit with that special girl for an hour and it seems like a minute. That's relativity." —Albert Einstein

Einstein's theory of relativity gave birth to the axiom, "everything is relative." Management theory and practice has certainly embraced this concept through the use of reference points. A reference point is something we use to compare new stimuli against in order to make sense of that stimuli. Using reference points is part of the perceptual process from which we describe, evaluate, and/or make decisions about things, people, and events. For example, a manager may compare this week's performance to last week's (reference point) and determine that it is substandard.

Employee A may compare her salary to employee B's (reference point) and decide she is paid fairly. Or, a human resources manager may determine that an employee's dress is inappropriate for the times. Everything is relative to some reference point.

A discussion of reference points is incorporated in many business research areas such as marketing (Shoham & Fiegenbaum, 1999; Van Auken & Adams, 1998), economics (Brown, 1995), and the management fields of strategy (Fiegenbaum, Hart & Schendel, 1996; Fershtman, 1996), decision-making (Tversky & Kahneman, 1991), negotiations (Blount, Thomas-Hunt & Neale, 1996; Kristensen & Gärling, 1997a, 1997b; White et al., 1994), compensation (Blau, 1994), ethics (Boyle, Dahlstrom & Kellaris, 1998), and risk (Kahneman & Tversky, 1979). Reference points are a central component of numerous management theories and practices including prospect theory, equity theory, performance evaluations, benchmarking, and stock market analyses.

In spite of their ubiquitous use in descriptions, evaluation, and decision-making, the question of what determines the choice of reference points remains relatively unexplored in management literature. For example, Kahneman and Tversky (1979) developed two well-known theories on decision-making (the prospect theory and the reference-dependent model), which posit that decisions are dependent on how an individual frames the decision in comparison to a reference point. But neither theory attempts to explain how or why a particular reference point is chosen other than to acknowledge that the status quo is a frequently used reference point. One area that has received considerable attention is that of establishing referent others (Goodman, 1974; Kulick & Ambrose, 1992; O'Neill & Mone, 2005). This research is limited to comparisons between individuals and has not been extended to the broader context of reference points. Some researchers have sought to identify which reference points are selected in various situations (Gooding, Goel & Wiseman, 1996; Kristensen & Garling, 1997a), but no attempt has been made to identify the dimensions of reference points or the processes involved in their selection. In fact, researchers have yet to provide a clear and consistent definition of reference points.

This is a critical oversight in the research literature. Defining reference points, understanding their dimensions, and modeling the process by which reference points are selected can provide vital insights into individual perceptions and decision-making processes. For example, it is well documented that framing effects are dependent upon reference point selection (Kahneman & Tversky, 1991). Understanding which reference point an individual will choose and why is crucial to better understanding the framing process and the resulting decision. Practically speaking, if managers understand how and why employees choose their reference points, they may be able to influence that process, thereby influencing their judgments and decision-making. Knowing what referent another individual is likely to choose may give us the insights necessary to influence job satisfaction and to predict and prevent such behaviors as job turnover (Dittrich & Carrell, 1979; Kulik & Ambrose, 1992). Drawing from the existing management and psychology literature, we propose a definition of reference points and their dimensions, as well as a model of reference point selection.

Definition

While the basic concept of reference points is relatively clear, few formal definitions have been offered and those that have been are not consistent. Lim (1995, p. 8) defined reference points as "an expectation level," but he notes that this definition is intentionally narrow to fit his specific topic. Many researchers discuss using anchoring points more interchangeably with reference points (Holyoak & Gordon, 1983; Rosch, 1975; Smith, Cooney & McCord, 1986), but Kahneman (1992) draws a distinction. Still, he refers to reference points as something against which outcomes are coded and evaluated.

One general definition for the word "reference" is something that serves as a source of information. The central concept of reference points is that they act as a point of comparison from which we learn about a new stimulus. For any stimulus to act as a reference point, it must possess known characteristics (Kahneman, 1992; Rosch, 1975). We must be familiar with at least some attribute of the reference point if we are to use it as a standard against which we can compare something else (Holyoak & Gordon, 1983).

In addition, there must be something about the new stimulus which is unknown (Kahneman, 1992; Rosch, 1975). If we know all there is to know about something, we have no need to compare it with something else. The act of comparing it with the reference point is designed to help us gather information about an unknown feature relative to a known domain (Brown, 1995; Kahneman, 1992; Rosch, 1975).

And finally, the unknown feature of the new stimulus must share a perceived connection with a known feature of the reference point (Goodman, 1974; Holyoak & Gordon, 1983; Kahneman, 1992; Rosch, 1975; Smith et al., 1986; Wisniewski & Bassok, 1999). While humans are capable of making many types of associations between objects or ideas (e.g. analogies, thematic connections, categorical connections) (Wisniewski & Bassok, 1999), researchers have noted that reference points require a categorical connection (Fiegenbaum et al., 1996; Kahneman, 1992; Rosch, 1975). Other types of associations such as the thematic connection made between key and car, do not facilitate comparison. Categorical connections allow comparisons on the basis of the shared category. Goodman (1974) refers to this as referent relevance. Cars and boats can be compared because they both belong to the category of modes of transportation. Nevertheless, categorical connections can be very broad in nature since we are capable of categorizing individual stimuli in multiple categories. These concepts allow us to form a working definition of reference points.

> *Definition:* Reference points are stimuli of known attributes that act as standards against which other categorically similar stimuli of unknown attributes are compared in order to gain information.

Dimensions

This research proposes that reference points have at least five dimensions: familiarity, connectivity, similarity, temporal, and locus. The first two of these are

implicit from the proposed definition while the others present themselves from previous research. Understanding these is important as each dimension will have an impact on the selection process. Each dimension becomes a possible criterion for sorting and selecting among potential reference points. The following section describes each dimension and how it interacts with the selection process in general. As we will show, the saliency of each dimension may change depending upon the circumstances.

Familiarity

By definition, we must be familiar with some aspect of a stimulus in order to use it as a reference point. Familiarity is crucial to the notion of reference points. It is not necessary though to know everything there is to know about it. Instead, we only need to know specific characteristics about it. These characteristics must be those for which we are seeking information for our initiating stimulus.

The need for familiarity has been recognized by other researchers (Holyoak & Mah, 1982; Rosch, 1975; Stapel & Koomen, 1998). Holyoak and Mah (1982) proposed that reference points may possess different levels of familiarity. When we are very familiar with a stimulus, we use it as a habitual reference point. Stimuli with which we are less familiar may be used as transient reference points when a better reference is not available. Holyoak and Gordon (1983) found that we use the self as a habitual reference point in similarity comparisons with our friends but not in comparisons with others.

Rosch (1975) demonstrated that we tend to use prototypes, clearest cases, and best examples as preferred reference points. These categories all denote items with which we tend to be most familiar.

> *Proposition 1*: The more familiar we are with a stimulus, the more likely we are to use it as a reference point.

Connectivity

The second proposed dimension is that of connectivity. This means that the reference point must share a common attribute with the new stimulus (Holyoak, 1978; Rosch, 1975). Again, this is an implicit assumption contained in the definition. As has been previously noted, researchers have posited that this must be a categorical connection and the shared attribute must be a known attribute in the reference point and also an unknown or uncertain attribute in the new stimulus. Such a shared connection is necessary for any significant comparative learning or analysis to occur (Frederick & Loewenstein, 1999; Holyoak, 1978; Rosch, 1975).

Psychology researchers have developed several theories about how humans categorize stimuli including spatial models (Nosofsky, 1986; Shepard, 1962), feature-based models (Tversky, 1977), and prototypes or exemplar models (Reed, 1972). A complete understanding of categorization processes is beyond the scope of this article (see Ashby and Maddox, 2005), but a few points are important to consider. First, humans have demonstrated a wide range of categorization skills. We are capable of categorizing a single stimulus into multiple domains using various dimensions or

properties. For example, an apple can be categorized by size, shape, color, or food category (i.e. fruit). Furthermore, we are able to distinguish between these multiple categorizations based on context (Poitrenaud, Richard & Tijus, 2005). Second, some stimuli appear to be better representations of a category than others (Markman & Gentner, 2001). Apples are generally considered a better representation of a fruit than tomatoes.

> *Proposition 2*: The likelihood of a stimulus being chosen as a reference point will increase the more categorically similar it is to the characteristic of interest in the novel stimulus.

Similarity

Beyond the categorical connection between a potential reference point and a novel stimulus, the two may also share other similar features. For example, within the category of birds, sparrows are more closely associated with wrens than with ostriches. This closeness is based upon other categorizations shared by the stimuli (e.g. size, color, location, etc.). While these may or may not be directly related to the aspect being compared, further similarities will probably increase the perceived appropriateness of the reference point (Stapel & Koomen, 1998; Tversky, 1977). If we want to know the size of a particular company, we might compare it to any other company of known size. However, the comparison may seem more meaningful or appropriate if the two companies are in the same industry, are similar in age, geographically near each other, and so forth.

> *Proposition 3*: The more similarities a known stimulus shares with an unknown stimulus, the more likely that it will serve as a reference point.

Temporal

The idea that reference points contain a temporal dimension has been suggested by several researchers (Bell & Bucklin, 1999; Fiegenbaum et al., 1996; Kahneman, 1992, 1999; Loewenstein, 1988). The temporal dimension refers to whether the reference point is based on past, present, or future criteria. For example, a business attempting to assess its performance could use past, present, or a future performance goal as a reference point (Fiegenbaum & Thomas, 1988; Gooding et al., 1996; Heath, Larrick & Wu, 1999; Lee, 1997).

Loewenstein (1988) emphasized this temporal dimension when he showed that purchasing behavior is dependent on whether the buyer compares the price of a product against a previous sale price, the present price of similar goods, or an expected future price (e.g. an expected price increase). Although Fiegenbaum and her colleagues (Bamberger & Fiegenbaum, 1996; Fiegenbaum et al., 1996) divided the temporal dimension into only two categories (past and future), Loewenstein's analysis shows that reference points can exist in the present as well.

In fact, it can be argued that the present state is the most likely one to be chosen for a reference point (Kahneman & Tversky, 1979; Knetsch, 1989; Samuelson & Zeckhauser, 1988; Tversky & Kahneman, 1991). We tend to be more familiar with

current conditions than with either past or future conditions. In addition, current conditions may be more salient. A temporally current reference point is also likely to be perceived as evolving or existing in a similar set of conditions or environment and thus, more similar to the novel stimulus being investigated. While past conditions may also be high in familiarity, they will probably have less connectivity to the current stimulus, though this is not necessarily so. If the present status contains significant unfamiliarity or uncertainty, then a past state may be preferred as the reference point. And finally, a future state is least likely to serve as a reference point because the future often contains significant uncertainty and may lack connectivity to the present stimulus. There is some evidence though that at least one type of future based reference point, goals or aspirations, can be rather influential and persistent (Heath et al., 1999).

Proposition 4: Present criteria are more likely to be used as reference point than are future or past criteria.

Proposition 5: Past temporal states are more likely to serve as reference points than future states.

Locus

The last dimension considered here is locus, or the internal vs. external dimension. Fiegenbaum et al. (1996) considered these as separate dimensions, but use the terms in referring both to the reference point itself and to environmental forces that influence reference point selection. While we agree with them that there are both internal and external forces which impact the reference point selection process, the reference point itself cannot be both internal and external simultaneously.

The locus dimension refers to the originating source of the reference point. Internal reference points come from personal experience or personal ownership (Holyoak & Gordon, 1983). External reference points come from outside the self.

The distinction between internal and external reference points has been considered in negotiations, marketing, and sociology literatures. Negotiations researchers have noted that negotiators use both internal (e.g. reservation price) and external (e.g. market price) reference points (Blount, Thomas-Hunt & Neale, 1996; Kristensen & Gärlinga, 1997a, 1997b; White et al., 1994). Internal and external reference points have been linked to purchasing decisions (Bell & Bucklin, 1999). Some sociologists argue that the self is the primary internal reference point used in analyzing social situations (Holyoak & Gordon, 1983; Rogers, Kuiper & Kirker, 1977; Rogers, Kuiper & Rogers, 1979). Others have noted that social norms often serve as external reference points (Boles & Messick, 1995; Kahneman, 1999; Kahneman & Miller, 1986).

The locus concept can be extended to other levels of analysis as well. An internal organizational reference point comes from within the organization, while an external organizational reference point comes from outside the organization. Organizations evaluating their performance can use internal reference points such as their own previous performance, or they can use external reference points such as industry means or a specific competitor's performance (Fiegenbaum & Thomas, 1988; Gooding et al., 1996).

We propose that internal stimuli are more likely than external stimuli to be selected as a reference point. We tend to be more familiar with and knowledgeable about our characteristics or the characteristics of our organization than with those of others. Internal characteristics also require less cognitive effort to recall and comprehend. For these reasons, internal reference points are particularly likely to be used when complex or difficult characteristics are being investigated. For example, we would typically compare another person's ethical standards or personal integrity with our own rather than with someone else's.

Under some conditions external reference points are needed. We may not share a categorical connection with the novel stimulus such as when we want to know about the fuel efficiency of an automobile. Sometimes the information we seek is about ourselves. For example, the fairness of our pay is most often understood when compared with an external reference point.

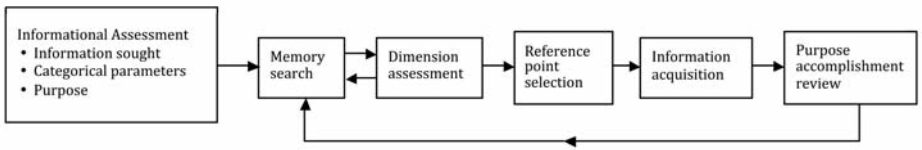
Proposition 6: Internal reference points will be used more often than external reference points.

Reference Point Selection

Although business researchers have widely acknowledged the importance of reference points and their impact, very little work has been done to determine how and why a particular stimulus is chosen to serve as a reference point. At first glance, reference point selection would seem to be automatic or intuitive. A closer examination however, reveals that the process is deliberative and cognitive. Psychology research on categorization and comparisons provides some help in understanding the process. We begin by looking at the general steps to reference point selection. Then we consider moderating factors that will affect the process.

The first step in reference point selection is to determine what aspect of the new stimulus is unknown (See Figure 1). This is a crucial step since it sets the parameters for the reference point search. These parameters include the category of information being sought and most likely, the purpose of the information. This step is often characterized by the formulation of question. A simple example will help demonstrate the process.

Figure 1: *Reference Point Selection Model*



Suppose a hospital is trying to determine if its heart attack survival rate is acceptable. They may formulate a simple question, "How good is our survival rate for heart attacks?" which typifies this step. While it may seem that the question could best be answered by a numerical report of survival rates, such numbers often lack context. Reference points provide context. Notice that the question identifies the specific performance metric that we are interested in learning more about. This automatically establishes the categorical domain that will be considered when we search for an appropriate reference point. It eliminates other aspects of hospital performance (e.g. nurse-to-patient ratio, patient satisfaction rates, timeliness with paperwork, etc.) from consideration. It is, of course, possible to formulate a broader question (e.g. "How good is our patient care?") which would include these other aspects of the hospital's performance in the categorical domain to be searched. The narrower the scope of information sought, the narrower the search parameters.

Implicit behind the formation of the question is the purpose for seeking the information. Understanding the purpose of the information is important since it is likely to affect the level of attention given to reference point selection. Existing research suggests that the information gathered can be used for at least three different purposes: description (Helson, 1964), evaluation (Thibaut & Kelley, 1959), and decision-making (Tversky & Kahneman, 1991) (Ashby & Maddox, 2005; Markman & Ross, 2003). Information used for evaluation is more important than that used for basic descriptive purposes, and information used for decision-making is more important than that used for evaluation. Thus, reference point selection is most important when the information will be used for decision-making. It is expected that more cognitive energy will be devoted to reference point selection when the information is to be used for important purposes.

The second step in the process is to search our memory for stimuli that share a categorical connection with the unknown aspect of the new stimulus. Our ability to locate and identify categorically similar items is dependent upon our categorization skills, experience, memory, and effort expended. Stimuli that do not share a perceived categorical connection, or are not available in memory, cannot be used as a reference point. Continuing the above example, the identified category is patient survival rate. Thus, we would quickly turn to other survival rate statistics.

Next, stimuli identified in the categorical search are checked using the other dimensions of reference points. We review a stimulus to see if it meets acceptable levels of familiarity, connectivity and similarity. These three dimensions are applicable to all reference point selections and are likely to be the most critical to the selection process. The other dimensions (temporal and locus), may not always be relevant and may have more limited application. Nevertheless, when they are relevant to the selection, they will also be considered.

The categorical search and dimensional assessment steps are potentially iterative. If the first identified potential reference point fails to meet an acceptable level of comparability in all the relevant dimensions, it will be discarded and we will return to the search stage to identify another possibility. In doing so, we are likely to narrow the search parameters to avoid selecting another unacceptable option.

In our current example, our initial search might have produced survival rates

among cancer patients in our hospital as a likely reference point. We check cancer survival rates on the relative dimensions to see if it is an appropriate reference point. We are familiar with that rate (familiarity) and it shares an appropriate categorical connection (connectivity) with heart attack survival rates. In some ways the two rates are similar (e.g. they are both in our hospital and occurred during the same time frame), but they are also very different (e.g. different diseases). We must determine if any existing differences make cancer survival rates an inappropriate reference point. In this case, the difference in diseases violates the similarity requirement and causes us to return to the search stage. We therefore narrow our search parameters specifically to heart attack survival rates. We may consider heart attack survival rates in our hospital from previous years (internal locus) or we may consider rates from other hospitals (external locus). We assess both options on the relative dimensions and determine that rates in other hospitals are most relevant given changes in medical technology which have improved patient care significantly (temporal). Having reached acceptable levels on the relative dimensions, other hospitals' heart attack survival rates are then selected as the reference point.

Selection of a reference point occurs when a stimulus meets acceptable levels on all applicable dimensions. In the current example, we may determine that we need to be even more specific with our selection limiting it to other hospitals of similar size, type, geographic location, or services. Note that when a stimulus is chosen as a reference point, we cease the searching process. Following the principle of satisficing, we do not search other potential stimuli to see if a better reference point can be found.

The next step involves obtaining the desired information by comparing the unknown aspect of the new stimulus to the reference point. In the current example, our survival rates will be viewed in comparison to other similar hospitals' rates. In the last step, we review the information to see if it accomplishes the original purpose. If we are seeking evaluative information and our survival rates are higher than theirs, we would conclude that we are doing well. If we are using the information for decision-making purposes, can we make a decision based on the information obtained? For example, if our survival rates are lower, we may need to improve nurse-to-patient ratios. If the purpose is fulfilled, the process is complete. If not, we may return to the search stage and repeat the process or we may seek to use some other way of gathering the desired information.

Moderators

There are a number of moderators that can influence the reference point selection process. Note that reference point selection is a cognitive process involving the unknown and is thus susceptible to many previously identified cognitive biases and heuristics (Tversky & Kahneman, 1974). An identification of all potential moderators is beyond the limitations of this paper, but some examples are identified here to illustrate the impact that they may have.

The general reference point selection process is likely to be moderated by environmental factors such as time constraints and the importance of the information

sought. Given its cognitive nature, an exhaustive search for the best reference point might not be feasible or warranted. If time is a factor, individuals may choose to use a reference point that they have used previously. Commonly used reference points, or habitual reference points, are familiar and require less time for cognitive processing. Karylowski (1990) found that the use of self as a habitual reference point decreased time spent in making social judgments. When the information sought is not critical, individuals may satisfice rather than do a complete search for the best reference point.

While time and importance may curtail the search process, other factors such as personal motives or outcome salience may actually overextend the process (Kühberger, 1998). A person may begin with the end in mind and therefore seek a reference point which will confirm preheld suppositions. For example, union leaders negotiating wages will likely seek to use a reference point which helps them obtain the largest raise for their constituents. If their company's management team received 10% raises the previous year while other union workers within the industry only received 3%, they will naturally be inclined to want to use management raises as the reference point for negotiations. They may argue that company management is more similar to their union workers than workers in other companies since they work for the same company, and draw upon the same resource pool. While this ignores the dissimilarities in their responsibilities and skills, it might better serve their end goal. This suggests that individuals unhappy with the evaluation drawn from one reference point may switch reference points in a form of self-fulfilling prophecy. Such effects have been noted in research on happiness and hedonic adaptation (Frederick & Loewenstein, 1999; Kahneman, 1999).

Additional moderators may impact individual steps in the selection process. The initial step of identifying the information needed may be moderated by the novelty of the situation and an individual's experiences. Novel situations may make identification of the information needed difficult. Likewise, an individual's lack of experience may limit his/her ability to identify required information or it may color the interpretation of the current situation.

The searching phase involves several cognitive processes including categorization, memory storage and memory searching, which are highly susceptible to moderator influence. Categorization skills are influenced by individual attentiveness to detail, mental and creative ability. This will influence how stimuli are categorized and therefore, which ones are perceived to be categorically similar. Memory storage is affected by cognitive ability. Memory searching is subject to numerous cognitive biases such as familiarity, vividness, recency, and the availability for recall. These will affect one's ability to find the largest possible set of potential reference points.

The ability to evaluate the dimensions of a potential reference point may be affected by our experience and familiarity with the stimulus as well as our cognitive ability to recognize similarities and dissimilarities. It is also important to recognize which dimensions are most relevant to the selection process. Personality traits such as conscientiousness and need for cognition may impact this area also (Boyle et al., 1998). These may change the amount of effort expended in the search and evaluation of potential reference points.

Research Implications

This research has highlighted how reference point selection is important to understanding how information is gathered and used. Reference point selection has a direct impact on how information is evaluated and decisions are made. This research has sought to provide much needed clarity to the definition and dimensions of reference points. In addition, the proposed model provides a possible framework for understanding how reference points are selected.

The proposed model needs to be tested empirically to validate its accuracy. More work remains to be done to clarify the steps. For example, it has been proposed that the various dimensions are checked for their suitability and that they may vary depending on the situation. Variables need to be identified that will help clarify which dimension is most salient and to determine their relative weighting.

A number of potential moderators have been suggested. Those proposed here represent but a few of the potential moderators which may impact the selection process. Others need to be identified. The model provides a framework for understanding when such moderators may be most likely to occur.

Research is needed to investigate how individual differences affect the reference point selection process. Work has been done to see if such differences influence framing effects when reference points are provided (Fischoff, 1983; LeBoeuf & Shafir, 2003) but what if no reference point is given? Fischoff (1983) provided subjects with three potential ways to describe the same scenario to see how subjects choose the frame for making a decision. His findings were unable to predict individual behavior based upon the frame selected. Perhaps an investigation into the reference point underlying the frame would produce better predictions. The current research provides a framework for such an investigation.

Considerable research is needed on the potential moderating influence of individual differences on the selection process. How do personality traits such as need for cognition or conscientiousness impact the effort expended? Does mood play a role? Do some individuals such as those with high negative affectivity naturally choose reference points that negatively skew information evaluation? These are but a few of the possibilities which readily present themselves for additional research.

Another area of needed research is to see how the model might fit with the concept of multiple reference points. One debate is whether multiple reference points are integrated into a single reference point or are considered separately (Barkan et al., 2005; Ordonez, Connelly & Coughlan, 2000). Integration of multiple reference points may be possible through the creation of a fictional stimulus which more closely resembles the stimulus in question than any existing stimulus. Segregation may be used to compare closely related but different aspects of the stimulus such as fairness and satisfaction in pay levels (Ordonez et al., 2000).

Modeling the reference selection process may also help to encourage the use of multiple reference points to avoid ensuing framing problems. Whyte (1991) suggests that such an approach may improve the overall quality of decisions. The use of multiple reference points may be accomplished by asking individuals to search for other stimuli that share similar characteristics or by varying other dimensions such as

seeking potential past, present and future reference points.

This research may also provide a framework for investigation into why one reference point is chosen when multiple reference points are presented (Boles & Messick, 1995; Ordonez et al., 2000; Sullivan & Kida, 1995). The reference point chosen may truly be a better representation of the stimulus under consideration or cognitive biases may have simply made it appear to be so.

The current model may also shed light on how and why individuals change reference points (Fredrick & Loewenstein, 1999). This may occur when new information becomes available that questions the current reference point's appropriateness and thus, a new one is sought. It may occur to allow a "reinterpretation" of the resulting evaluation if the current one is unpleasant. It might be used to retrospectively justify one's behaviors (Levine & Moreland, 1987).

Conclusion

Reference points are an integral part of many organizational practices and theories. Understanding their nature and how they are selected is critical to future research. This research provides much needed clarity on reference points by developing a concise definition and by describing their dimensions. Furthermore, it identifies the different purposes for which they are used. And finally, it provides a model describing how reference points are selected, including potential moderators. It is hoped that this research will act as a catalyst for further research in this important area.

References

Ashby, F. G. & Maddox ,W. T. (2005) Human Category Learning. In S.T. Fiske, D. L. Schacter & C. Zahn-Waxler (Eds.), *Annual Review of Psychology, 56*: 149-178.

Bamberger, P. & Fiegenbaum, A. (1996). The role of strategic reference points in explaining the nature and consequences of human resource strategy. *The Academy of Management Review, 21*: 926-950.

Barkan, R., Danziger, S., Ben-Bashat, G. & Busemeyer, J. R. (2005). Framing reference points: The effect of integration and segregation on dynamic inconsistency. *Journal of Behavioral Decision Making, 18*: 213-326.

Bell, D. R. & Bucklin, R. E. (1999). The role of internal reference points in the category purchase decision. *Journal of Consumer Research, 26*: 128-147.

Blau, G. (1994). Testing the effect of level and importance of pay referents on pay level satisfaction. *Human relations, 47*: 1251-1268.

Blount, S., Thomas-Hunt, M. C. & Neale, M. A. (1996). The price is right – or is it? A reference point model of two-party price negotiations. *Organizational Behavior and Human Decision Processes, 68*: 1-12.

Boles, T. L. & Messick, D. M. (1995). A reverse outcome bias: The influence of multiple reference points on the evaluation of outcomes and decisions. *Organizational Behavior and Human Decision Processes, 61*: 262-275.

Boyle, B. A., Dahlstrom, R. F. & Kellaris, J. J. (1998). Points of reference and individual differences as sources of bias in ethical judgements. *Journal of Business*

Ethics, 17: 517-525.
Brown, P. M. (1995). Learning from experience, reference points, and decision costs. Journal of Economic *Behavior and Organization, 27*: 381-399.
Dittrich, J. E. & Carrell, M. R. (1979). Organizational equity perceptions, employee job satisfaction, and departmental absence and turnover rates. *Organizational Behavior and Human Performance, 24*: 29-40.
Fershtman, C. (1996). On the value of incumbency: Managerial reference points and loss aversion. *Journal of Economic Psychology, 17*: 245-257.
Fiegenbaum, A., Hart, S. & Schendel, D. (1996). Strategic reference point theory. *Strategic Management Journal, 17*: 219-235.
Fiegenbaum, A. & Thomas, H. (1988). Attitudes towards risk and the risk-return paradox: Prospect theory explanations. *Academy of Management Journal, 31*: 85-106.
Fischoff, B. (1983). Predicting frames. *Journal of Experimental Psychology, 9*: 103-116.
Frederick, S. & Loewenstein, G. (1999). Hedonic adaptation. In Kahneman, D. Diener, E. & Schwarz, N (Eds.). *Well-being: The Foundations of Hedonic Psychology*. New York: Russell Sage Foundation.
Gooding, R. Z., Goel, S. & Wiseman, R. M. (1996). Fixed versus variable reference points in the risk-return relationship. *Journal of Economic Behavior and Organization, 29*: 331-350.
Goodman, P. S. (1974). An examination of the referents used in evaluation of pay. *Organizational Behavior and Human Performance, 12*: 170-195.
Heath, C., Larrick, R. P. & Wu, G. (1999). Goals as reference points. *Cognitive Psychology, 38*: 79-109.
Helson, H. (1964). *Adaptation-level Theory*, New York: Harper & Row.
Holyoak, K. J. (1978). Comparative judgements with numerical reference points. *Cognitive Psychology, 10*: 203-243.
Holyoak, K. J. & Gordon, P. C. (1983). Social reference points. *Journal of Personality and Social Psychology, 44*: 881-887.
Holyoak, K. J. & Mah, W. A. (1982). Cognitive reference points in judgments of symbolic magnitude. *Cognitive Psychology, 14*: 328-352.
Kahneman, D. (1992). Reference points, anchors, norms, and mixed feelings. *Organizational Behavior and Human Decision Processes, 51*: 296-312.
Kahneman, D. (1999). *Well-being: The Foundations of Hedonic Psychology*. In Kahneman, D. Diener, E. & Schwarz, N. (Eds.). New York: Russell Sage Foundation.
Kahneman, D. & Miller, D. (1986). Norm theory: Comparing reality to its alternatives. *Psychological Review, 93*: 136-153.
Kahneman, D. & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica, 47*: 263-291.
Karylowski, J. J. (1990). Social reference points and accessibility of trait-related information in self-other similarity judgments. *Journal of Personality and Social Psychology, 58*: 975-983.
Knetsch, J. L. (1989). The endowment effect and evidence of nonreversible indifference curves. *American Economic Review*: 1277-1284.
Kristensen, H. & Gärlinga, T. (1997a). Adoption of cognitive reference points in negotiations. *Acta Psychologica, 97*: 277-288.

Kristensen, H. & Gärlinga, T. (1997b). The effects of anchor points and reference points on negotiation process and outcome. *Organizational Behavior and Human Decision Processes, 71*: 85-94.

Kühberger, A. (1998). The influence of framing on risky decisions: A meta-analysis. *Organizational Behavior and Human Decision Processes, 75*: 23-55.

Kulik, C. T. & Ambrose, M. L. (1992). Personal and situational determinants of referent choice. *Academy of Management Review, 17*: 212-237.

LeBoeuf, R. A. & Shafir, E. (2003). Deep thoughts and shallow frames: On the susceptibility to framing effects. *Journal of Behavioral Decision Making, 16*: 77-92.

Lee, D. Y. (1997). The impact of poor performance on risk-taking attitudes: A longitudinal study with a PLS causal modeling approach. *Decision Sciences, 28*: 59-80.

Levin, J.M. & Moreland, R.L. (1981). Social, comparison and outcome evaluation in group contexts. In Masters, J.C. & Smith, W.P. (Eds.), *Social comparison, justice and relative deprivation: Theoretical, Empirical and Policy Perspectives:* 105-127.

Lim, R. G. (1995). A range-frequency explanation of shifting reference points in risky decision making. *Organizational Behavior and Human Decision Processes, 63*: 6-20.

Loewenstein, G. F. (1988). Frames of mind in intertemporal choice. *Management Science, 34*: 200-214.

Markman, A. B. & Gentner, D. (2001). Thinking. In Fiske, S.T., Schacter, D. L. & Zahn-Waxler, C. (Eds.), *Annual Review of Psychology, 52*: 223-247.

Markman, A. B. & Ross, B. H. (2003). Category use and category learning. *Psychological Bulletin, 129*: 592-613.

Nosofsky, R. M. (1986). Attention, similarity and the identification-categorization relationship. *Journal of Experimental Psychology, 115*: 39-57.

O'Neill, B. S. & Mone, M. A. (2005). Psychological influences on referent choice. *Journal of Managerial Issues, 42*: 273-292.

Ordonez, L. D., Connelly, T. & Coughlan, R. (2000). Multiple reference points in satisfaction and fairness assessment. *Journal of Behavioral Decision Making, 13*: 329-344.

Poitrenaud, S., Richard, J. & Tijus, C. (2005). Properties categories, and categorisation. *Thinking and Reasoning, 11*: 151-208.

Reed, S. K. (1972). Pattern recognition and categorization. *Cognitive Psychology, 3*: 382-407.

Rogers, T. B., Kuiper, N. A. & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology, 35*: 677-688.

Rogers, T. B., Kuiper, N. A. & Rogers, P. J. (1979). Symbolic distance and congruity effects for paired-comparisons judgements of degree self-reference. *Journal of Research in Personality, 13*: 433-449.

Rosch, E. (1975). Cognitive reference points. *Cognitive Psychology, 7*: 532-547.

Samuelson, W. & Zeckhauser, R. (1988). Status quo bias in decision making. *Journal of Risk and Uncertainty, I*: 7-59.

Shepard, R. N. (1962). The analysis of proximities: multidimensional scaling with an unknown distance function. *Psychometrika, 27*: 125-140.

Shoham, A. & Fiegenbaum, A. (1999). Extending the competitive marketing strategy paradigm: The role of strategic reference points theory. *Academy of Marketing*

Science Journal, 27: 442-454.
Smith, L. B., Cooney, N. J. & McCord, C. (1986). What is "high"? The development of reference points for "high" and "low". *Child Development, 57*: 583-602.
Stapel, D. A. & Koomen, W. (1998). Interpretation versus reference framing: Assimilation and contrast effects in the organizational domain. *Organizational Behavior and Human Decision Processes, 76*: 132-148.
Sullivan, K. & Kida, T. (1995). The effect of multiple reference points and prior gains and losses on managers' risky decision making. *Organizational Behavior and Human Decision Processes, 64*: 76-83.
Thibaut, J. W. & Kelley, H. H. (1959). *The Social Psychology of Groups,* New York: Wiley.
Tversky, A. (1977). Features of similarity. *Psychological Review, 84*: 327-352.
Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*: 1124-1131.
Tversky, A. & Kahneman, D. (1991). Loss aversion in riskless choice: A reference-dependent model. *The Quarterly Journal of Economics, 106*: 1039-1061.
Van Auken, S. & Adams, A. J. (1998). Attribute upgrading through across-class, within category comparison advertising. *Journal of Advertising Research, 38*: 6-16.
White, S. B., Valley, K. L., Bazerman, M. H., Neale, M. A. & Peck, S. R. (1994). Alternative models of price behavior in dyadic negotiations: Market prices, reservation prices, and negotiator aspirations. *Organizational Behavior and Human Decision Processes, 57*: 430-447.
Whyte, G. (1991). Decision failures: Why they occur and how to prevent them. *The Executive, 5*: 23-33.
Wisniewski, E. J. & Bassok, M. (1999). What makes a man similar to a tie? Stimulus compatibility with comparison and integration. *Cognitive Psychology, 39*: 208.