The Local Dominance Effect in Self-Evaluation:
Evidence and Explanations

A dissertation presented to
the faculty of
the College of Arts and Sciences of Ohio University

In partial fulfillment
of the requirements for the degree
Doctor of Philosophy

Ethan Zell

March 2010

© 2009 Ethan Zell. All Rights Reserved.

This dissertation titled
The Local Dominance Effect in Self-Evaluation:
Evidence and Explanations

by

ETHAN ZELL

has been approved for
the Department of Psychology
and the College of Arts and Sciences by

Mark D. Alicke

Professor of Psychology

Benjamin M. Ogles

Dean, College of Arts and Sciences

Abstract

ZELL, ETHAN, Ph.D., March 2010, Psychology

The Local Dominance Effect in Self-Evaluation: Evidence and Explanations (78 pp.)

Director of Dissertation: Mark D. Alicke

The local dominance effect is the tendency for comparisons with a few people to have a greater impact on self-assessments than comparisons with many people. This review first presents a series of recent studies that provide direct support for the local dominance hypothesis. Next, a variety of potential explanations for the local dominance effect are presented including social categorization, information ease, self-enhancement, and physical proximity. Finally, the theoretical and practical implications of the effect, in addition to potential future directions in this research line are proposed.

Approved: _____

Mark D. Alicke

Professor of Psychology

Table of Contents

	Page
Abstract	3
List of Tables	6
List of Figures	7
The Local Dominance Effect in Self-Evaluation: Evidence and Explanations	8
Social Comparison Theory	8
Local Dominance in Self-Evaluation.....	11
Evidence.....	13
Overview.....	13
The Frog-Pond Effect	13
Individual versus Aggregate Comparison.....	17
Local versus General Comparison	19
Mere Categorization and Self-evaluation	22
Summary	23
Potentially Conflicting Evidence	24
Explanations.....	26
Overview.....	26
Perceived Usefulness	26
Information Abstractness/Concreteness	27
Social Categorization.....	29
Information Ease.....	30
Self-Enhancement and Self-Protection	32

	5
Proximity	35
Entitativity	38
Evolutionary Importance of Small Social Groups	40
Developmental Importance of Small Social Groups	41
Summary	42
Implications.....	43
Overview.....	43
Faulty Self-Assessment.....	43
Health Risk Judgments	45
Satisfaction with Pay	47
Stigma and Self-Esteem.....	48
Summary	50
Future Research Directions.....	51
Contextual Moderators	51
Individual Difference Moderators	52
Other Tasks and Outcomes	53
Conclusions.....	54
References.....	55

List of Tables

	Page
Table 1: Evidence for the local dominance effect	68
Table 2: Explanations of the local dominance effect.....	69

List of Figures

	Page
Figure 1: Hierarchical feedback levels along the local-general continuum.....	70
Figure 2: Specific comparisons which reveal the frog-pond effect	71
Figure 3: Self-evaluations as a function of local and general comparsion	72
Figure 4: Specific comparisons which reveal the frog-pond effect	73
Figure 5: Self-evaluations as a function of local and general comparsion	74
Figure 6: Self-evaluations as a function of local and general comparsion	75
Figure 7: Specific comparisons which reveal the local dominance effect.....	76
Figure 8: Self-evaluations as a function of feedback condition.....	77
Figure 9: Sample feedback in the information concreteness study.....	78

The Local Dominance Effect in Self-Evaluation: Evidence and Explanations

It is hard to envision life without a self. Deciding whom to marry, what job to pursue, or even how to celebrate one's birthday would be nearly impossible without a self to lead the way. This sense of self, according to social comparison theory (Festinger, 1954), is partly developed through a process where people compare their own attributes, opinions and abilities to those of other people. These comparisons not only occur frequently, that is, more than once per day (Wheeler & Miyake, 1992) or even more if you count the comparisons people do not consciously register (Mussweiler, Ruter, & Epstude, 2004), but they also profoundly impact how people think and feel about themselves (Suls & Wheeler, 2000; Stapel & Blanton, 2007). For example, job applicants waiting with a confederate who is dressed neatly in a suit with briefcase feel worse about themselves than those waiting with a confederate who appears disheveled and reeks of unpleasant body odor (Morse & Gergen, 1970). Looking at photographs of models can negatively affect self-perceptions of physical attractiveness (Brown, Novick, Lord, & Richards, 1992; Cash, Cash, & Butters, 1983). Graduate students can at times be inspired and other times dejected by learning about the accomplishments of a superstar graduate student (Lockwood & Kunda, 1997). Finally, cancer patients can uplift themselves by thinking about other people who have it worse than them (Taylor, Wood, & Lichtman, 1983).

Social Comparison Theory

Since its inception over 50 years ago, research under the umbrella of social comparison theory has tackled a number of fundamental questions about how and how

well people know themselves. One of the first major inquiries of social comparison research was to identify whether people prefer to compare with others who are similar or dissimilar to themselves. In general, people prefer to compare with similar others (Goethals & Darley, 1977; Miller, 1984), who are slightly better off than themselves (Wheeler, 1966). While early social comparison research focused primarily on the targets people actively select for the purpose of comparison, today it is recognized that many, if not most social comparisons are foisted upon individuals rather than actively chosen by them (Wood, 1989).

Another major thrust in social comparison research has been to identify whether comparisons with other people impact self-evaluations even in the context of more diagnostic data sources. Festinger (1954) contended that people compare themselves to peers only when other, more “objective” sources of information (i.e., IQ scores, population norms) are unavailable. In contrast with this view, Klein (1997) demonstrated that social comparison feedback indicating one’s relative risk (above/below average risk) exerts pronounced effects on self-evaluations of perceived risk, affect, and health behaviors even when more objective standards such as one’s absolute risk (40% chance of disease) are known.

Several social comparison models have been developed to explain when and how social comparisons impact people’s self-evaluations and self-esteem. Tesser’s (1988) self-evaluation maintenance model argues that comparisons exert a greater impact when they involve individuals who are in a close relationship and the dimension of comparison is important. Mussweiler’s (2003) selective-accessibility model predicts that comparisons

will elicit assimilation effects (i.e., judgment pulled toward the standard) when the comparison involves another person who is similar to the self and contrast effects (i.e., judgment pulled away from the standard) when the comparison involves another person who is dissimilar to the self. Finally, Markman and McMullen's Reflection and Evaluation Model (2003) argues that social comparisons produce assimilation effects when the comparison standard is included in the self-concept and contrast effects when the comparison standard is excluded from the self-concept. Although the self-evaluative effects of social comparison are moderated by a host of factors including relationship closeness, task relevance, similarity, cognitive load, target attainability, and perceived control (for reviews, see Blanton, 2001; Collins, 1996; Wood, 1989), people generally evaluate their own characteristics and abilities more favorably when they perceive that they are doing better as opposed to worse than other people.

The most recent development in social comparison is that it is now considered an "automatic" process. In other words, social comparisons can occur without effort, awareness, intention, and control (Bargh, 1997). Consistent with this logic, recent work indicates that subliminally exposing participants to a social comparison standard can impact self-evaluations. Specifically, participants subliminally primed with Albert Einstein later rated their intelligence less favorably than those primed with a clown (Stapel & Blanton, 2004). Further, because people cannot help themselves from engaging in social comparison, they tend to do so even when it is logically inappropriate. For example, participants in one study continued to compare their performance on a task to the performance of another student even when this student was given an obvious

advantage or disadvantage (Gilbert, Giesler, & Morris, 1995). Altogether, these findings suggest that social comparisons can occur and exert influence automatically.

Previous social comparison research has focused predominantly on the impact of one piece of comparison information on self-assessment, such as how people respond when they compare themselves to their best friend (Mussweiler & Ruter, 2003), the average person (Klein, 2003), or to another group (Major, Sciacchitano, & Crocker, 1993). Although it is useful to understand how exposure to one comparison source influences self-evaluations, there are many situations in which people have multiple pieces of comparison information at their disposal. For example, a student can compare their test score to the scores of people sitting near them by looking over their shoulder, but they can also see whether they have done above or below the class average. An athlete can compare their skill to teammates, and also how skilled their team is in comparison to other teams. An employee can compare their salary to other people in their profession, and most people in general regardless of profession. This paper examines how people resolve multiple comparisons such as these.

Local Dominance in Self-Evaluation

The central thesis of this report is that when multiple comparison standards are available for the purpose of self-evaluation, people rely on the most “local” piece of comparison information, while neglecting other, more “general” forms of self-relevant feedback. This tendency is referred to as the *local dominance effect* (Alicke, Zell, & Bloom, in press; Zell & Alicke, 2009). Local information is defined as comparison feedback specifying a person’s status in relation to one or a few discrete individuals with

whom one shares a group membership (e.g., friends, family members, classmates) while general information includes comparisons with aggregates, outgroups, and larger samples.

To further elucidate the distinction between local and general comparison, again consider the example of a student (See Figure 1). When students receive standardized test scores (SAT, ACT, GRE, etc.), they can compare their scores to their best friend (one person), a small group of close friends (a few people), their classmates (several people), their schoolmates (hundreds/thousands of people), and all test-takers (millions of people). Local comparison typically refers to the feedback types at the top of the hierarchy, including comparisons with friends and classmates. General comparison typically refers to the feedback types at the bottom of the hierarchy, including comparisons with larger aggregates such as the average student at one's school, or the average test-taker in the broader population. It is important to highlight that these are relative rather than absolute designations. In other words, the local-general distinction occurs along a continuum in which some types of feedback are more local (or more general) than others. For example, comparisons with other students in the same class are more local than comparisons with most students in the general population, but less local than comparisons with a small group of close friends.

According to the local dominance hypothesis, comparisons that are relatively local should have a greater self-evaluative impact than comparisons that are more general (Alicke, Zell, & Bloom, in press; Buckingham & Alicke, 2002; Zell & Alicke, 2009). That is, when students assess their ability level on the dimensions captured by the

standardized test (verbal ability, math ability), they will rely more on comparisons with friends and peers than comparisons with more diagnostic data sources such as the average test taker. Therefore, the local dominance effect may produce self-evaluations that are inaccurate. Students who by chance happen to have friends or peers who performed terribly may have inflated ability perceptions. Students who by chance happen to have friends or peers who performed exceptionally may have deflated ability perceptions. These outcomes are of important consequence given the powerful role self-views play in shaping future achievement and career strivings (Marsh & O'Mara, 2008).

Evidence

Overview

Numerous studies utilizing a variety of research techniques and outcome measures support the underlying logic of the local dominance hypothesis (See Table 1). The next section reviews these studies, by first reporting on applied research detailing how students evaluate themselves in academic contexts. Next, a series of recent experiments that manipulated local and general comparison standards are reported. Finally, evidence that seemingly contradicts the local dominance effect is presented, and ultimately integrated with the local dominance framework.

The Frog-Pond Effect

Social comparisons can occur in a multitude of different environments, including the classroom, office, cafeteria, or gym. Researchers have been especially interested in the social comparisons that occur in schools, and how these comparisons shape student self-perceptions of academic ability and competence. Schools are a convenient laboratory

for studying social comparison effects. Students commonly compare their test-scores, grade-point average, and other educational outcomes with that of their classmates and schoolmates. Also, instructors often make available the average score or even the entire distribution of scores for students to use as a source of comparison following examinations.

Research suggests that students derive a sense of academic competence largely through social comparisons with peers in the local environment (Davis, 1966; Marsh & Parker, 1984). This work argues that the same objective performance level will lead to relatively positive academic self-concepts when that performance ranks favorably in the immediate environment (i.e., class, school), and relatively negative academic self-concepts when that performance ranks unfavorably in the immediate environment. Thus, perceived local standing is expected to drive or mediate academic self-concept ratings, and this relationship is expected despite the fact that students often have access to more diagnostic data sources through which to evaluate their academic ability, such as standardized test scores.

Substantial evidence supports the dominant role accorded to local comparison information in academic self-evaluations. For example, after controlling for student academic ability, there is a robust negative relationship between school quality and student academic self-concept (Marsh & Parker, 1984; Marsh, 1987). That is, an average student will have a more positive academic self-concept when they attend a low-quality school where they rank favorably in the local environment, than a high-quality school where they rank unfavorably in the local environment. This tendency, coined the “big

fish in a little pond effect” or “frog-pond effect,” paradoxically leads good students at bad schools to have more favorable academic self-concepts, despite being objectively similar (or even worse) than bad students at good schools.

The frog-pond effect is a highly reliable and generalizable outcome (Marsh & Hau, 2003). The magnitude of the frog-pond effect is comparable among low and high ability students, rich and poor students, as well as black and white American students (Marsh, 1987). Further, cross-cultural studies demonstrate that the frog-pond effect obtains in over 35 diverse countries around the world including Brazil, Russia, Japan, and Sweden (Marsh & Hau, 2003), and is therefore considered a relatively universal phenomenon (Seaton, Marsh, & Craven, 2009).

Several studies provide evidence indicating that local comparisons with classmates directly contribute to the frog-pond effect. For example, the frog-pond effect is especially pronounced among students who are predisposed to care more about their status within local groups than the status of their groups in comparison to other groups (McFarland & Buehler, 1995). Similarly, the frog-pond effect is evident to a greater degree among women than men in some contexts, presumably because women are more attuned to their status within groups than the overall status of the group in relation to other groups (Gardner, Gabriel, & Hochschild, 2002).

Other work demonstrating the role of local comparisons in producing the frog-pond effect specifically contrasts the influence of local comparisons from other, more general forms of self-relevant information. For example, the frog-pond effect has been conceptualized as the net result of two opposing comparisons: the contrastive effect of

within-school (i.e., local) comparisons with schoolmates, and the assimilative effect of between-school (i.e., general) comparisons that indicate overall school quality (Marsh, Kong, & Hau, 2000). Attending a low quality school may deflate student self-concepts, and attending a high quality school may boost student self-concepts. However, students at high quality schools frequently compare themselves to superior classmates, which may deflate their academic self-concepts. Similarly, students at low quality schools frequently compare themselves to inferior classmates, which may boost their academic self-concepts. Although these assimilative (i.e., school quality) and contrastive (i.e., peer comparison) effects are statistically significant and independent, the contrast effect is considerably larger (Marsh, Kong, & Hau, 2000). Thus, the positive effect of attending a top school is not sufficient to counteract the negative effect of having low status in the local environment. The negative effect of attending a weak school is not sufficient to counteract the positive effect of having high status in the local environment. These findings provide compelling support for the argument that student academic self-concepts are derived more from comparisons with peers in the local environment than comparisons with students at other schools.

Finally, recent evidence directly implicates the mediating role of local comparisons with classmates in producing the frog-pond effect (Huguet et al., 2009). Consistent with the frog-pond effect, class average ability was negatively related to academic self-concept ratings after controlling for student academic ability. That is, students with the same academic ability level evaluated themselves more positively when they were in a low ability class than a high ability class. Students were also asked to

indicate how good their academic abilities were in comparison to their classmates.

Students with the same objective performance level evaluated themselves more favorably when they perceived that their academic ability ranked better than most students in their class than worse than most students in their class. Furthermore, including this measure of perceived local standing into the model eliminated the frog-pond effect. In other words, the frog-pond effect was reduced to nonsignificance after controlling for student's perceived standing in their class. This finding shows convincingly that the frog-pond effect is in part driven by social comparisons with peers in the local environment.

Altogether, research on the frog-pond effect suggests that local comparisons with peers in the immediate environment play a leading role in self-assessment (Marsh et al., 2000; Huguet et al., 2009). On the other hand, this work does not specifically contrast the relative impact of local comparison standards versus more diagnostic data sources such as aggregate or distributional comparisons, nor is it able to make causal statements about the impact of local comparisons on self-evaluations given its reliance on correlational designs.

Individual versus Aggregate Comparison

Social comparison theory and research has traditionally focused on comparisons between the self and one other salient person. This is a useful approach given that people frequently compare themselves to individual targets such as their best friend, office mate, neighbor, or romantic partner (Smith & Leach, 2004; Wheeler & Miyake, 1992). Until recently, however, social comparison research has neglected the common situation in

which people evaluate themselves not only in the context of individual comparisons with singular targets, but also aggregate comparisons with an average target.

According to the local dominance perspective, people should rely more on comparisons with individuated targets such as their spouse, office mate, or rival, than comparisons with aggregate targets like the average person when evaluating themselves. A set of experiments provides support for these assertions (Buckingham & Alicke, 2002). In these studies, students completed a bogus lie detection test and then received manipulated feedback about their performance. The feedback specified that participants performed better or worse than another, same gender student taking the test at the same time as them (who was in actuality a confederate). Additionally, the feedback specified that participants performed better than or worse than the average student at their school, based on over 500 previous student participants. After taking a few moments to review the performance feedback, participants evaluated their perceived lie detection ability. Consistent with the local dominance hypothesis, individual comparison with the co-actor, but not aggregate comparison with the average student, impacted self-evaluations of lie detection ability. These studies suggest that local comparisons with one present person in the immediate environment may have a greater impact on ability self-assessments than exposure to pallid statistical information indicating that one is better or worse than average.

This research, however, is limited by the fact that the general comparison was non-specific, informing participants only that they were better or worse than average. Participants may have relied on the individual comparison standard to assess themselves

simply because the aggregate comparison was ambiguous and did not indicate precisely where they ranked in the broader distribution (e.g., 84th percentile). Therefore, although these studies provide tentative evidence for the local dominance effect, the use of a non-specific general comparison manipulation lead to studies that were not optimally designed to test the local dominance hypothesis.

Local versus General Comparison

A series of recent experiments which explored the relative impact of local versus general social comparisons provide direct support for the local dominance hypothesis (Zell & Alicke, 2009). For example, in an experimental analogue of the typical frog-pond study, participants completed a bogus verbal reasoning task and then received manipulated feedback about their performance (Zell & Alicke, 2009; Study 1). This feedback indicated that participants performed better or worse than most students at their university (i.e., local comparison), and that their university performed better or worse than most schools involved in the study (i.e., general comparison). Consistent with applied research on the frog-pond effect, students with high status at a low-quality school evaluated themselves more favorably than students with low status at a high-quality school (see Figure 2). Additionally, local comparison feedback specifying participant's standing at their school consistently impacted self-evaluations and mood. On the other hand, general comparison information detailing the standing of the participant's school in relation to other schools only impacted self-evaluations and mood when local comparison information was unavailable (see Figure 3). These findings rule out the argument that participants simply do not care about general comparison information, because when

participants were only provided with feedback about the quality of their school, this information had a pronounced impact on several outcomes. Yet when participants had both local and general comparisons at their disposal, local comparisons displaced the impact of general comparisons on self-evaluations and mood.

A follow-up study provides further support for the local dominance hypothesis (Zell & Alicke, 2009; Study 2). Participants in this study completed a verbal reasoning task and were told that their task performance ranked best or worst in a group of five students currently taking part in the study (i.e., local comparison), and that the performance of their group ranked better than 90% or 30% of several hundred similar groups at their university (i.e., general comparison). Consistent with the local dominance hypothesis, students who ranked best in a low-quality group evaluated themselves more favorably than students that ranked worst in a high-quality group (see Figure 4). Furthermore, whereas local comparison feedback specifying participant's standing in their small group influenced self-evaluations and mood, general comparison information detailing the standing of the participant's group in relation to other groups only influenced self-evaluations and mood when local comparison information was unavailable (see Figure 5).

One important feature of these initial studies was that the local comparison standards pertained to the individual self (standing of the self within a group), while the general comparison standards pertained to the collective self (standing of an ingroup in relation to other groups). Past work indicates that feedback directed toward the individual self is more impactful than feedback directed toward the collective self (Gaertner &

Sedikides, 1999). Thus, it is possible that the reported findings reflect this motivational primacy of the individual over collective self, rather than local dominance more broadly.

An experiment conducted to test this alternative explanation directed both local and general comparison standards to the individual self (Zell & Alicke, 2009; Study 4). In this study, participants completed a verbal reasoning task and were told that they ranked best or worst in a small group of about five other students who were participating in the same experimental session as them (i.e., local comparison), and that they ranked better than 84% or 32% of about 1500 previous participants at their school (i.e., general comparison). Consistent with the local dominance hypothesis, ranking best or worst in the local group had a greater impact on self-assessments and mood than ranking better or worse than nearly 1,000 previous participants. Furthermore, while general comparison feedback had a substantial impact on self-evaluations and mood when participants were only provided with this information, the impact of general comparison information plummeted when it was provided simultaneously with local comparison information (see Figure 6). Finally, a focused contrast showed that participants ironically evaluated themselves more favorably and reported greater positive affect when they ranked best in the local group but at the 32nd percentile than worst in the local group but at the 84th percentile (see Figure 7). Therefore, the local dominance effect remains even when both local and general comparison standards implicate the performance of the individual self. These findings suggest that the dominance of local over general comparisons is not confined to circumstances in which the local comparison is directed toward the individual self and the general comparison is directed toward the collective self. In addition, these

findings go beyond past work (Buckingham & Alicke, 2002) by showing that local comparisons with a few peers dominate and displace the influence of comparisons with numerous peers even when general comparison data is presented in a precise and unambiguous format.

Mere Categorization and Self-evaluation

Applied research suggests that comparisons with peers in the local environment have an important influence on self-assessments (Marsh et al., 2000; Huguet et al., 2009). Reliance on local comparisons with classmates ultimately leads good students at lackluster schools to evaluate themselves more favorably than bad students at prestigious schools, after controlling for student academic ability. Despite these controls, it is possible that in some samples, good students at lackluster schools are in actuality more capable, and therefore should evaluate themselves more positively than bad students at prestigious schools. Excellent students may on occasion be drawn to mediocre schools for various reasons (e.g., to stay close to home), while top schools often have at least some weak students (e.g., those accepted because of a legacy rather than merit).

A recent experiment tested whether high ranking members of low-quality groups continue to evaluate themselves more favorably than low ranking members of high-quality groups, even when the former has a lower objective performance level than the latter (Alicke, Zell, & Bloom, in press). Ten participants were brought to the laboratory and immediately subdivided into two minimal groups of five. Next, participants completed a lie detection test and then received manipulated feedback about their performance. Students were told that among the ten current participants, their

performance ranked fifth or sixth overall. Additionally, some participants were told that they ranked fifth overall, but worst in their five person minimal group, which implies that everyone in their group performed better than everyone in the other group. A final group was told that they ranked sixth overall, but best in their five person minimal group, which implies that everyone in their group performed worse than everyone in the other group.

Consistent with the local dominance hypothesis, participants evaluated their test performance and overall lie detection ability more favorably when they ranked best in their five-person group but sixth overall than worst in their five-person group but fifth overall (see Figure 8). In these conditions therefore, participants' over-reliance on local comparison information led them to evaluate themselves more favorably when they ranked sixth than fifth. These findings indicate that the local dominance effect arises even when good members of bad groups have a lower objective rank than bad members of good groups.

Additionally, participants who ranked sixth overall, but best in their local group evaluated themselves more favorably than those simply told that they ranked sixth. Participants who ranked fifth overall but worst in their local group evaluated themselves less favorably than those simply told that they ranked fifth. These findings provide compelling support for the argument that local comparisons influence self-assessments over and above the influence of more informative data sources.

Summary

The local dominance effect is well supported by both basic social psychological research, and applied studies on the frog-pond effect. These studies uniformly point to the

importance of comparisons with peers in the immediate environment as a powerful determinant of self-evaluations despite the availability more diagnostic data sources. Interestingly, local dominance occurs even when it is logically inappropriate. People feel better about themselves when they rank best in a local group but poorly in the broader population than when rank worst in a local group but favorably in the broader population (Zell & Alicke, 2009). Similarly, people feel better about themselves when they rank best in a local group and sixth out of ten than when they rank worst in a local group and fifth out of ten (Alicke, Zell, & Bloom, in press).

Potentially Conflicting Evidence

A few studies report findings which suggest that general comparisons, in some contexts, are more powerful determinants of self-evaluations and affect than local comparisons. For example, one study tested the impact of individual (i.e., single other) and aggregate (i.e., average other) social comparisons on self-evaluations, affect, and helping behavior (Klein, 2003; Study 2). Participants completed a bogus verbal task and then received manipulated feedback indicating that they performed better or worse than a confederate or better or worse than the average student who had taken the same test. Participants evaluated their performance more favorably, reported greater positive affect, and were more helpful toward another participant after receiving positive feedback than negative feedback. However, the magnitude of these effects was larger in the aggregate than individual social comparison conditions.

Similar findings were reported in a recent set of applied social comparison studies (Locke, 2007; Study 2 & 3). Participants thought about social comparisons that had

occurred recently in their daily life, indicated whether these comparisons were with an individual target (personalized comparison) or with most people in general (generalized comparison), and then reported how strongly these comparisons impacted their overall mood when they occurred. Results indicated that comparisons with generalized targets were reported to have a greater impact on overall mood than comparisons with specific, individual targets particularly when these comparisons were with better off peers.

Altogether, recent work indicates that general comparisons may have a somewhat stronger effect on various outcomes than local comparisons when these standards are considered alone (Klein, 2003; Locke, 2007; cf. Zell & Alicke, 2009). These findings are important in assessing the independent effects of local and general comparisons. In addition, the conflicting findings provide one potential boundary condition for local dominance. While local comparisons dominate general comparisons when people are simultaneously presented with both feedback types (Buckingham & Alicke, 2002; Zell & Alicke, 2009), this outcome may not occur when people receive the feedback types separately.

However, the conflicting findings are also broadly consistent with the local dominance perspective because they show that local dominance is not the result of people simply dismissing or failing to comprehend large sample statistics (see the section titled “perceived usefulness” below for more on this point). When people receive local and general comparisons in isolation, general comparisons have larger effects (Klein, 2003; Locke, 2007) or effects that are equivalent in magnitude (Zell & Alicke, 2009) to local

comparison effects. This helps rule out the possibility that local dominance occurs simply because people fail to appreciate the diagnosticity of data from large samples.

Explanations

Overview

Substantial evidence supports the underlying logic of the local dominance effect. Social comparisons with a few relevant peers overwhelm and negate the influence of comparisons with larger samples and aggregates. Why does the local dominance effect occur? Similar to most social psychological phenomena, the local dominance effect is multiply determined. Several potential explanations, some proposed, other supported by relevant research, are presented below (See Table 2).

Perceived Usefulness

A simple explanation for the local dominance effect is that people fail to recognize the superior diagnostic value of general comparisons. According to this argument, people may rely mainly on local comparisons during self-assessment because they (incorrectly) believe that local comparisons are more useful, diagnostic, and informative than information from larger samples. A recent study tested and ultimately ruled out this possibility (Zell & Alicke, 2009; Study 5). Participants completed a verbal task in small groups and were then asked to choose whether they would rather receive local comparison feedback indicating how well they performed in relation to their small group, or general comparison feedback indicating how well they performed in relation to 1500 previous participants. Further, participants rated the usefulness of each of these feedback sources for evaluating their overall performance and ability. About 75% of the

participants preferred general comparison feedback, and general comparisons were rated as substantially more useful than local comparisons for the purpose of self-evaluation. Thus, although participants use local comparisons more than general comparisons when evaluating themselves, this does not seem to occur because participants fail to appreciate the superior value of large-sample statistics.

Information Abstractness/Concreteness

The standards that people use when making self-evaluations and social judgments can vary in terms of their overall concreteness versus abstractness. While local comparisons with one or a few specific peers are concrete, comparisons with generalized targets like the average person are relatively more abstract. Past work indicates that abstract information can be neglected during the social judgment process in favor of less diagnostic, but ultimately more concrete information sources (Borgida & Nisbett, 1977; Kahneman & Tversky, 1973). For example, research on “base-rate neglect” demonstrates that when people judge others, whether it be the likelihood that they have a disease or the likelihood that they are guilty of a crime, they tend to neglect abstract population base-rates in favor of concrete case information about the target in question (for a review, see Barbey & Sloman, 2007).

Along these lines, one could argue that local dominance in self-evaluation arises out of this basic tendency to rely mostly on concrete comparisons with peers during self-assessment at the expense of considering more diagnostic, but ultimately more abstract comparisons with larger samples. In support of this position, research suggests that when large sample data sources are presented more concretely by accompanying them with

vivid images, their influence increases dramatically (Dunn & Ashton-James, 2008). Thus, it is possible that the local dominance effect in self-evaluation could be reduced or even eliminated when general comparisons are presented in a more concrete format, such as when people view an entire distribution of scores rather than just pallid statistical information about the average score.

However, a recent experiment challenges this explanation of the local dominance effect (Zell & Alicke, 2008a). In this study, participants completed a verbal reasoning task and received manipulated feedback indicating that they performed better or worse than 8 out of 10 student participants that day (local comparison) and better than 19% or 91% of about 500 previous participants (general comparison). A third factor manipulated the concreteness of the general comparison standard. Some participants received pallid summary statistics indicating only that they performed better than 19% or 91% of their peers. Alternatively, other participants received the general comparison feedback in a much more concrete format. For these students, a printout of all test scores accompanied the summary statistics (See Figure 9). On one side of the handout were the 10 scores of students who completed the test that day. Participants own score, which fell at the top or bottom of this distribution was highlighted. On the other side of the handout were several hundred scores of all students who had completed the test up to that point. Again, participants own score, which fell near the top or bottom of this large distribution was highlighted.

Surprisingly, information concreteness had no influence on the local dominance effect. Consistent with the local dominance hypothesis, participants evaluated themselves

more favorably when they had high rank in the local group and low rank in the broader distribution than when they had low rank in the local group and high rank in the broader distribution. This effect obtained both when general comparison data was presented abstractly and concretely. In fact, the local dominance effect was slightly, but not significantly stronger when general comparison information was presented in a concrete rather than abstract format. Therefore, the local dominance effect does not seem to occur simply because local comparisons are more concrete and vivid than general comparisons.

Social Categorization

According to social identity theory (Tajfel & Turner, 1986), people categorize themselves and others into two fundamental types of groups: groups in which the self is a member (ingroups), and groups to which the self does not belong (outgroups). Research indicates that people discriminate in favor of their ingroups, by providing them with more resources than relevant outgroups (Tajfel et al., 1971). This tendency to favor ingroups over outgroups is called the “ingroup bias.” Interestingly, the ingroup bias occurs even when people are assigned to groups on an arbitrary basis (e.g., a flip of a coin, drawing straws, etc.) (Diehl, 1990).

Just as people are predisposed toward favoring ingroups over outgroups, people may also be predisposed toward emphasizing comparisons with ingroup members than comparisons with outgroup members during self-assessment. For example, when people receive direct social comparison feedback indicating that they are better or worse than another person, this feedback often elicits more pronounced effects on self-evaluations and self-esteem when it is in relation to ingroup members than outgroup members

(Major, Sciacchitano, & Crocker, 2003; Miller, Turnbull, & McFarland, 1988). Thus, one could argue that the local dominance effect specifically arises of this tendency to place more weight on comparisons with ingroup than outgroup members.

A recent study, however, casts doubt on the social categorization explanation of the local dominance effect (Zell & Alicke, 2008b). Students completed a verbal reasoning task and then received manipulated feedback indicating that they performed better or worse than 8 out of 10 previous participants at another school (Iowa State University), and better than 19% or 91% of about 500 previous participants at their own school (Ohio University). Local comparison feedback indicating participant's status relative to students at another school had a greater impact on self-assessments and mood than general comparison information indicating their status among several hundred students at their own school. These findings suggest that the local dominance effect may not be confined to situations in which local information pertains to an ingroup, and general information pertains to an outgroup.

Information Ease

People have limited attentional and cognitive resources that they carry with them during their day-to-day lives. According to the “motivated tactician” perspective, people use these scarce resources strategically by cutting-corners and using short-cuts when possible (Fiske & Taylor, 1991). This can lead people to utilize more clear-cut, easy to process standards when making evaluations rather than more complex, difficult to process standards, despite the fact that this may produce decisions that are at times erroneous (Gilovich, Griffin, & Kahneman, 2002; Tversky & Kahneman, 1974).

From this perspective, one might expect that when multiple comparison standards are available for self-evaluation, people will selectively focus on those standards that are easiest to process, thus sparing cognitive resources for later endeavors. In an ideal world, people would carefully process all comparison standards, and consult only those that are most diagnostic when assessing themselves. Yet given the limited resources people have to devote toward information processing, they have to take short cuts. This may lead people to primarily focus on comparison standards that are easy to process such as local comparisons, while more difficult to process general comparisons are neglected despite their superior diagnosticity. It is important to highlight that this argument only pertains to the situations in which people have multiple comparison standards. If people have just one comparison standard available for self-evaluation, regardless of whether it is local or general, the feedback source should be carefully evaluated and exert influence because processing one feedback type on its own is not especially taxing. Yet when people have multiple comparison standards available for self-evaluation, they generally cannot devote the necessary time and energy toward processing all of these feedback types, and therefore selectively focus on one source of information that is deemed most economical in terms of its required energy expenditure.

Consistent with this logic, recent research suggests that local dominance is in part produced by people devoting limited energy toward examining feedback types that are easier to process, such as local comparisons, at the expense of considering more difficult to process feedback types, such as large sample statistics (Zell & Alicke, 2009; Study 3). In one study, participants completed a bogus verbal task and received manipulated

feedback about their performance. To examine how people respond to multiple feedback types, some participants were provided with three feedback sources indicating that they ranked best or worst in a local group, in addition to more complex statistical information indicating how well they performed in relation to nearly 1500 previous test takers at their school, and how well their school as a whole performed in relation to other schools. Consistent with the information ease explanation, participants who received all three feedback sources used only the easy to process, local comparison information when evaluating themselves while neglecting the more difficult to process, statistical information indicating their status or the status of their school among larger samples.

Furthermore, consistent with the information ease explanation, these three feedback types each exerted comparable effects when provided alone. Given that people typically have sufficient cognitive processes available to dissect just one feedback source, this is not surprising. Yet when participants received all three types of feedback, the default response was to selectively process and highlight the simple to process local comparison over its more strenuous to process counterparts.

Self-Enhancement and Self-Protection

Most people want to see themselves as likeable, talented, and valuable (Taylor & Brown, 1988), but there are some situations in which people must confront negative feedback about their attributes and skills. Students can get a low test score, employees can be demoted or even fired at work, and people can be rejected by another person with whom they have a romantic interest. Psychological research has long been interested in how people cope with negative feedback, and how they maintain positive self-views in

the face of threatening self-relevant information. Rather than directly accept negative information, people may defend themselves from threats to their psychological well-being just as they would defend themselves from threats to their physical well-being (Alicke and Sedikides, 2009). Negative self-relevant information can be discounted (Ditto & Lopez, 1992), interpreted in a self-serving way (Alicke et al., 1997), or selectively forgotten as time passes (Green, Sedikides, & Gregg, 2008).

Research suggests that these construal processes may influence local dominance in that people favor local over general comparisons particularly when general comparison data threatens the global self-concept. Two sources of evidence support this position. First, research on the relative impact of individual versus aggregate social comparison indicates that people favor individual over aggregate comparisons especially when aggregate comparisons threaten the global self-concept (Buckingham and Alicke, 2002). In these studies, participants completed a bogus lie detection test and were told that they performed better or worse than one other student taking the test at the same time as them, and better or worse than the average student. Individual comparison with the other present participant influenced self-assessments of performance and lie detection ability regardless of whether it had positive or negative implications for the self. This finding suggests that individual (i.e., local) comparisons are sufficiently powerful to override self-enhancement concerns. However, aggregate comparison information was utilized during self-assessment only when it reflected favorably on the self. This neglect of unflattering aggregate comparison information was obtained on self-evaluations of lie detection ability, but not on more even-handed assessments of lie detection test

performance. Thus, when participants performed below average, they were quick to admit that they performed poorly, yet participants defensively asserted that this poor performance did not reflect their general lie detection ability.

Second, research on the relative impact of local and general comparisons also provides evidence for the role of self-protection processes in local dominance (Zell & Alicke, 2009; Study 4). In this work, participants completed a verbal reasoning task and were told that they ranked best or worst in a small group of about five people, and better than 32% or 84% of about 1500 previous participants. Local comparison with a few peers significantly impacted self-evaluations and mood both when it had positive and negative implications for the self, providing further evidence that local comparisons override self-enhancement processes. Conversely, general comparison information impacted self-evaluations and mood only when it had favorable implications for the self. When participants were told that they ranked below average, this information was neglected, arguably, for the purpose of self-protection. Furthermore, the general comparison feedback levels utilized in this study (32nd percentile, 84th percentile) were intentionally set to be equidistant from participants' baseline expectations for performance (58th percentile). This attribute rules out the possibility that general comparisons were downplayed simply because they conflicted with expectations and aroused suspicion on that basis.

Altogether, research on individual versus aggregate comparison and local versus general comparison suggests that local dominance might be especially pronounced when people feel threatened by large sample statistics. While the effect of local comparisons

with peers and ingroup members is sufficiently powerful to override self-enhancement concerns, the effect of general comparisons with statistical aggregates is not. This leads people to rely more on local than general comparison data sources when evaluating themselves, particularly when general comparisons threaten the global self-concept.

Proximity

Local comparisons can be distinguished from general comparisons with statistical aggregates in that local comparisons are often more immediate (i.e., proximal). Although people are frequently in the physical presence of local group members during the social comparison process, rarely are people in the physical presence of all subjects that comprise large-sample data. Classic social psychology studies point to the powerful impact of the presence of others on perception, judgment, and behavior. Asch's (1955) research on line judgment and Sherif's (1936) research on the perception of light movement both showed that one's own judgments can be influenced by the judgments of local peers, albeit for very different reasons. Further, Milgram's (1963) obedience studies demonstrate the profound influence of immediate authority figures. People obeyed the commands of an authority figure to the point of severely harming another person. Interestingly, obedience rates were substantially higher when the authority figure was physically present rather than physically absent. Finally, social facilitation research (Zajonc, 1965) demonstrates that the physical presence of others can increase evaluation apprehension, which improves performance on easy tasks and impairs performance on difficult tasks.

Research regarding the influence of physical proximity (i.e., the presence of others) on local dominance is mixed. In one set of studies (Buckingham & Alicke, 2002), participants completed a lie detection test at the same time as another student who was either physically present (i.e., in the same room) or absent (i.e., in another room). After completing the test, participants were told that they performed better or worse than the other student, and that they performed above or below average. Evidence for the local dominance effect emerged such that self-evaluations of lie detection ability were influenced more by comparison with the other student than comparison with the average person. However, this tendency was more pronounced when participants completed the test in the live presence of the other student than when they completed the test alone. More specifically, while the impact of local comparison with one person was uninfluenced by physical proximity, general comparison with the average person was. General comparison with the average student had a greater self-evaluative impact when participants were alone than when they were in the physical presence of another person. Therefore, these studies speak more to the role of physical proximity in influencing attention to abstract statistical data than the influence of physical proximity in attention to local comparisons with peers.

A more recent study demonstrates that the local dominance effect may occur both when the local group is physically proximal and physically distal (Zell & Alicke, 2009; Study 4). In this study, participants completed a verbal reasoning task either in the presence of a small group of about five individuals, or alone. Participants who were alone completed the task in a small laboratory room in a busy location, and were told that other

students were completing the task at the same time and in the same building as them. All participants received manipulated feedback indicating that they were the best or worst person in the small group of current participants (i.e., local comparison), and that they ranked better than 84% or 32% of nearly 1500 previous participants (i.e., general comparison). Local comparison information had a greater impact on self-evaluations and mood than general comparison information. Further, the magnitude of the local dominance effect was not influenced by the physical presence of the local group. That is, local dominance occurred both when the local group was physically present as well as physically absent. In summary, although some evidence suggests that the impact of general comparisons with statistical aggregates may be deflated when people are in the presence of others (Buckingham & Alicke, 2002), the local dominance effect more broadly does not seem to be affected by the physical presence versus absence of the local group.

Another way in which local comparisons differ from comparisons with larger samples is that local comparisons are typically higher in psychological proximity. Local comparisons generally occur among friends, family members, co-workers, or competitors while larger samples which comprise general comparison data often consist mostly of strangers. Previous social comparison theory and research indicates that comparisons with psychologically proximal targets such as friends and relationship partners exert a greater influence on affect and self-esteem than comparisons with psychologically distal targets such as complete strangers (Tesser, 1988).

However, local dominance does not seem to be limited to contexts in which the local group consists of individuals who are of high psychological significance. Research indicates that local dominance arises even when the local group consists of complete strangers who by chance happen to be taking part in the study at the same time as the participant (Alicke, Zell, & Bloom, in press; Buckingham & Alicke, 2002; Zell & Alicke, 2009). Nevertheless, it is possible that local dominance effects might be even larger when the local group consists of individuals who are psychologically proximal rather than distal.

Finally, local comparisons are also higher in temporal proximity than general comparisons. Whereas local comparisons are contemporaneous, in that they involve a comparison between the self and other people who are completing a task at the same time, general comparison data can span weeks, months, or even years. One possibility then, is it that comparisons with individuals who complete a task at the same time as the self might be more salient than those who completed the task at some distant time in the past. Even further, people might consider contemporaneous performers to be of higher relevance because they completed the task under similar conditions. Thus, local comparisons might be of more importance because they involve comparisons with others in the “here and now” rather than comparisons with others who completed a task “some time ago.”

Entitativity

Groups naturally vary in terms of their cohesiveness, and factors including proximity, similarity, and common fate all contribute to perceptions of how “group-like”

a collection of individuals or objects appears to be (Campbell, 1958). According to these criteria, small local groups are generally more entitative (i.e., cohesive) than are groups which comprise large sample data. As mentioned above, local groups are typically higher in physical, temporal, and psychological proximity than are large samples. Further, local group members are often similar to one another, in that they might live or work in the same place, and share common goals or values. However, larger aggregates are highly variable, and might consist of individuals who share little in common.

Recent research indicates that social comparisons more readily occur, and have a greater judgmental impact when they involve a comparison between entitative as opposed to a non-entitative group members (Pickett, 2001). That is, comparison contrast effects occur with greater magnitude when they involve individuals who belong to a highly cohesive group (i.e., the same fraternity or sorority), than when they involve individuals who belong to a group that is low in cohesiveness (i.e., people born in the same month) (Pickett, 2001). Comparison effects occur with greater regularity and magnitude among individuals in high entitativity than low entitativity groups because it is simply easier to compare individuals who belong to cohesive groups than non-cohesive groups. In other words, it is easier to compare “apples to apples” than “apples to oranges.” Consistent with this logic, a recent study demonstrated that comparative judgments of two individuals occur with greater speed when they involve members of entitative (i.e., members of a sports team) than non-entitative groups (i.e., people in line at a bank) (Pickett & Perrott, 2004). Thus, local comparisons might occur with greater ease, and

have a greater impact than general comparisons, because local groups are more entitative (i.e., group-like) than are groups which comprise large sample data.

Evolutionary Importance of Small Social Groups

Human beings are social creatures, with a fundamental need to belong in social groups (Baumeister & Leary, 1995). Belonging in social groups brings with it a variety of benefits. Those with at least a few close interpersonal relationships are healthier and happier than those without these resources (Diener et al., 1999; Uchino et al., 1996). Additionally, in our ancestral past, membership in social groups was essential for protecting oneself from threats and obtaining necessary resources for survival.

Because we are hardwired to care about those in our immediate circle, it is not surprising that people are more attentive to feedback indicating how well they are doing in relation to one or a few relevant peers than most people in general. From an evolutionary perspective, information indicating one's general standing is of little use. Most people need not know where they stack up in comparison to the broader population, because one's survival and well-being depend on just a few people, not everyone. For this reason, people should be highly attuned to where their attributes and skills fit within the local environment rather than society in general.

Further, only in recent times have people had the luxury of receiving general comparison information. For most of human history, people's existence was confined to relatively small local communities. Faraway places and people were mostly limited to one's imagination. On the contrary, people live, work, and play with local group

members on a daily basis and so it makes sense that our emotions and evaluations are more sensitive to how we are doing in relation to local peers than to distant strangers.

Local comparisons might also be important from the perspective of competition and species perpetuation. According to evolutionary perspectives (e.g., Buss, 2009), men compete with other men over access to mates. This can include physical contests where men directly battle for a woman's affection, but might also include non-physical contests where men try to outdo their competitors in terms of appearance, sense of humor, or kindness. Women compete with other women for mates by enhancing their appearance and using gossip to derogate rivals, among other tactics. Direct competition within local groups often determines who will, and will not be successful at perpetuating their genes. One might presume, therefore, that comparisons with competitors in immediate local groups have greater survival value, and should be of greater consequence than comparisons with non-competitors from larger samples.

Developmental Importance of Small Social Groups

During childhood, people's lives are confined to the realm of small local groups. Children generally grow up in small families, and interact with a relatively small group of peers when they attend school. Early in life, therefore, children learn to evaluate themselves with reference to small local groups. This occurs not because children value local groups more than other such groups (as do adults), but simply because children do not typically have access to the attributes and skills of those outside of their immediate circle. This tendency to compare the self to local groups of peers and family members may occur so frequently in childhood that it becomes automatic and carries over into

adolescence and adulthood. In other words, defining the self via local comparisons becomes a habit early in life that continues throughout the lifespan despite the fact that people gain access to more useful sources of self-relevant information as they age.

Consistent with this argument, human development research indicates that early experiences with local groups of peers and siblings have far-reaching and long-lasting consequences. For example, peer group status is related to a variety of important outcomes during childhood including academic performance (Kindermann, 1993), depression (Cole & Dodge, 1988), and aggressive behavior (Parker & Ascher, 1987). In addition, some argue that adult language and personality are primarily derived from early experiences with peer groups (Harris, 1995). Finally, children and adolescents pursue specialty areas (e.g., playing the piano) when they perceive that they are better than their siblings in these domains, and avoid specialty areas when they perceive that they are worse than their siblings in these domains (Tesser, 1988).

Summary

Several mechanisms contribute to the local dominance effect. Recent evidence indicates that local dominance is primarily determined by self-protection concerns and differences in the ease with which local and general comparisons are processed. Extrapolating from previous theory and research, it could also be argued that the evolutionary and developmental importance of small social groups underlies local dominance in some contexts.

Implications

Overview

The local dominance effect has implications for a variety of research areas both within and outside of mainstream social psychology. The next section of this review first explores whether the local dominance effect can be used to explain why people often fail to know themselves well. Additionally, the implications of the local dominance effect for research on health risk assessment pay satisfaction, and racial disparities in self-esteem are discussed.

Faulty Self-Assessment

People's perceptions of themselves often fail to match reality (Dunning, Heath, & Suls, 2004). Most people evaluate their attributes and skills more favorably than reality warrants, and there are also contexts in which people evaluate themselves more negatively than objective data suggests they should (Kruger & Dunning, 1999). One prominent explanation for self-assessment inaccuracy is that people lack all of the information needed to know themselves well (Ehrlinger et al., 2008). Accurate self-assessment requires access to information about one's attributes and skills that can be hard to come by. In this information vacuum, self-evaluation becomes a guessing-game where people give themselves the benefit of the doubt by assuming they have positive attributes when often they do not. Supporting this position, research indicates that people who are least experienced with a domain, and therefore have had little opportunity to receive feedback about their ability in the domain, have highly inflated self-evaluations (Kruger & Dunning, 1999). On the other hand, when people are experts in a given domain they

evaluate their ability in this domain with a high degree of accuracy, presumably because they have received the requisite feedback to provide an informed self-assessment.

The local dominance effect provides another potential explanation for the lack of self-insight so commonly reported today. In some contexts, people may have all of the information needed to evaluate themselves appropriately, yet they may misuse this information. Although general comparisons are typically based on a large sample size and are therefore highly informative, local comparisons are often based on haphazard comparison cohorts that are not particularly informative for the purpose of self-assessment. Ironically, however, people heavily weight local comparisons and neglect general comparisons when evaluating themselves (Buckingham & Alicke, 2002; Zell & Alicke, 2009). This over-emphasis on nondiagnostic local comparisons rather than highly diagnostic general comparisons may produce inaccurate self-views in some contexts. People who have the good fortune of ranking favorably in the local environment will evaluate themselves positively even when their standing in relation to the general population is low. People who have the bad fortune of ranking unfavorably in the local environment will evaluate themselves negatively even when their standing in the relation to the general population is high. Given the important role self-views play in shaping a variety of motivations, decisions, and behaviors (Marsh & O'Mara, 2008; Swann et al., 2007), the inaccurate self-images created by local dominance may have far-reaching consequences. Future research is needed to examine whether local dominance contributes to unrealistic self-views, and whether people with biased self-views are more prone to local dominance than those with more accurate self-perceptions.

Health Risk Judgments

Research indicates that people have a difficult time generating accurate risk assessments, and the process of assessing one's own risk for disease and other health related incidents can be colored by a variety of biasing influences (for a review, see Klein & Stefanek, 2007). These findings are particularly problematic because self-assessments of risk predict a variety of health behaviors (e.g., Gerrard, Gibbons, & Bushman, 1996). Thus, one important goal of research on health risk assessment is to pinpoint why people's risk assessments are poorly calibrated, and to develop interventions that facilitate accurate risk perceptions.

One potential biasing influence on self-evaluations of risk is the over-weighting of local comparisons and the under-weighting of general comparisons during risk self-assessments. In evaluating their susceptibility to disease, people may consider both how healthy they are in comparison to most people in general and how healthy they are in relation to a salient local group (i.e., family, friends, and peers). According to research on the local dominance effect (Buckingham & Alicke, 2002; Zell & Alicke, 2009), comparisons with a few immediate peers may dominate health risk perceptions. When individuals are healthier than most in a local group, but less healthy than most in the general population, they may underestimate the likelihood that they will have future medical problems. On the other hand, when people are less healthy than most in a local group but healthier than most in the general population, they may overestimate the likelihood that they will have future medical problems. Future research is needed to

specifically examine whether local dominance effects extend to health self-perceptions and preventative health behaviors.

Although direct evidence for local dominance in health risk perception is scarce, two research programs point to the potential for local dominance. First, a perplexing finding in the literature is that elderly individuals are overly optimistic about their future health prospects (Weinstein, 1987). While it makes sense that healthy young adults live in the façade of invincibility, older adults experience symptoms of their mortality every day, such as visual cues of aging that reveal themselves in the mirror, or physical pains and limitations that accompany rigorous activity. Thus, it comes with some surprise that researchers have found robust unrealistic optimism effects among the elderly. However, local dominance might provide one solution to this paradox. Elderly individuals might report overly optimistic health perceptions because they are frequently given the opportunity to compare themselves downward to very sick peers that they see in hospitals and nursing homes. These downward local comparisons might be particularly salient, and of important emotional consequence. Thus, the uplifting effect of local comparisons with others who are worse off than the self might counteract the objective reality that one's future is not as rosy as one might wish.

Second, research on the comparison experiences of breast cancer patients also points to the potential for local dominance in the health realm (Taylor, Wood, & Lichtman, 1983). Breast cancer patients report that they more often compare themselves downward to those patients who have it worse off than them, than upward to those patients who are doing better than them. These downward local comparisons with

patients who are doing worse than the self can have an uplifting effect, as they lead to the sense that things “could have been worse.” Therefore, local comparisons among breast cancer patients might be particularly salient, and might play a larger role in the recovery process than diagnostic comparisons with most people in general.

Satisfaction with Pay

Pay is one of the most important rewards people receive from work and is an overt marker of a person’s status in society. When people are satisfied with their level of compensation, they tend to be more content with their job, attend work more often, and are less interested in pursuing jobs elsewhere than when they are not satisfied with their compensation (Lawler, 1971). Interestingly, relative deprivation theorists argue that pay satisfaction is influenced not only by how much money people actually earn, but also by whether they earn more or less money than relevant peers (Crosby, 1976; Runciman, 1966). Indeed, several studies show that people actively compare their compensation to the compensation others receive (Berkowitz et al., 1997; Major & Forcey, 1985), and that these comparisons directly affect pay satisfaction (Griffeth, Vecchio, & Logan, 1989; Sweeney & McFarlin, 2005).

Furthermore, research indicates that people often compare their pay to multiple referents, including friends and family members, colleagues inside and outside of their organization, and people in similar and dissimilar professions (Goodman, 1974). For example, employees typically know how whether they make more or less money than relevant co-workers and peers in addition to whether they make more or less money than most people in general. According to the local dominance hypothesis, pay comparisons

with peers in the local environment should have a greater impact on pay satisfaction and overall job satisfaction than pay comparisons with most people in general. Although the relative impact of local versus general pay comparisons has not been assessed, research suggests that wage comparisons with local group members are more influential than wage comparisons with other targets. Specifically, wage comparisons with colleagues in the same organization have a greater impact on pay satisfaction than wage comparisons with people in other organizations (Law & Wong, 1988). Additionally, satisfaction with life (i.e., happiness) is better predicted by income comparisons with parents, colleagues, and former schoolmates than by one's perceived status in society more generally (Senik, in press).

The potential for local dominance in wage comparison might be of particular concern to managers who wish to prevent their employees from seeking work elsewhere. Research suggests that when people perceive that they earn less than relevant peers, they are not only more dissatisfied with their job than others, but they are also more likely to quit than others (Aquino, et al., 1997). Even further, dissatisfaction with pay can result in deviant behaviors including theft and industrial sabotage (Martin, 1981). Thus, employee attitudes and behaviors can be powerfully influenced by the local environment in which they find themselves. Managers may therefore want to structure environments such that feelings of inequity and relative deprivation are kept to a minimum.

Stigma and Self-Esteem

Self-esteem refers to global self-evaluation and overall feelings of self-worth (Rosenberg, 1979). The self-esteem construct is of considerable importance and interest

to psychologists because it has been linked to mental health (Harter, 1999; Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004) and overall happiness (Lucas, Diener, & Suh, 1996) among other outcomes. Numerous studies have examined whether members of stigmatized groups have lower self-esteem than other members of society. Prominent theorists in decades past such as Gordon Allport (1954) and Eric Erikson (1956) argued that people in stigmatized groups should experience low levels of pride and self-esteem due to their disadvantaged status in society. In direct conflict with this view, research indicates that members of stigmatized groups such as people suffering from facial disfigurements, obesity, learning disabilities, mental retardation, and physical handicaps do not experience low levels of self-esteem (see Crocker & Major, 1989). Furthermore, recent meta-analyses across hundreds of studies and thousands of participants indicate that Black Americans, a group historically subject to stigma and discrimination, on average have somewhat higher self-esteem than White Americans (Gray-Little & Hafdahl, 2000; Twenge & Crocker, 2002). In sum, members of stigmatized groups often have similar or even somewhat higher self-esteem than members of non-stigmatized groups.

One potential explanation for the minimal impact of social stigma on self-esteem involves the dominant role of local comparison information in self-evaluation. Members of oppressed social groups are more likely to compare themselves locally to fellow group members who are similarly stigmatized, than generally to members of non-stigmatized majority groups (Crocker & Major, 1999). This occurs because local group members are often more proximal, are higher in similarity to the self and are therefore more likely to

be used as comparison referents (Festinger, 1954; Goethals & Darley, 1977), and finally because local comparisons with other stigmatized individuals are more likely to be of favorable consequence than comparisons with majority group members. Comparisons with members of high-status groups might be painful, and so one could argue that stigmatized individuals should favor comparisons with those of similar status to themselves to prevent these unpleasant emotional experiences.

Thus, the local dominance effect might serve an esteem buffering function among stigmatized individuals. The default tendency to evaluate oneself as a function of one's standing in the immediate local environment, rather than one's standing in society in general, protects stigmatized individual from the unpleasant reality that their general standing is low. This suggests that global feelings of self-worth might be anchored on the local standing of the self, much as self-evaluations of performance and ability are anchored locally (e.g., Buckingham & Alicke, 2002; Zell & Alicke, 2009).

Summary

The local dominance effect can be applied to a variety of research areas. Specifically, the local dominance effect may help explain why people often have inaccurate self-knowledge, why people have faulty health risk perceptions, why people are satisfied or dissatisfied with the compensation that they receive, and why being a member of a stigmatized group generally does not have an adverse impact on global self-esteem.

Future Research Directions

Although research has obtained robust evidence for the local dominance effect and uncovered several explanations for the effect, a number of issues with regard to local dominance remain unresolved. The next section of this review outlines the most critical unanswered questions with regard to local dominance. These include whether local dominance is moderated by contextual and individual difference variables, and whether local dominance extends to other tasks and outcome measures.

Contextual Moderators

The local dominance effect might be moderated by the external visibility of the local group and its members. Some groups are relatively isolated from other groups, and so the performances of ingroup members are likely to be much more salient and available than the performance of distant outgroup members. For example, school-children likely know the test scores and performance outcomes of peers at their own school, but the performance of students at other schools might not be readily available to them.

In other contexts, however, the accomplishments of individuals are widely known by those outside of their immediate circle, and are typically evaluated by their general as opposed to local standing. For example, one area where local dominance effects might be small or even non-existent is within academic departments at large research universities. Academics are typically evaluated by their performance level (i.e., number and impact of their publications, success in obtaining grant support) in comparison to peers in their field in general rather than their performance in comparison to other faculty at their University. For this reason, it stands to reason that local dominance might be reduced in professional

fields and organizations in which individual accomplishments are evaluated with reference to an external rather than internal standard.

Individual Difference Moderators

The local dominance effect is pervasive (Alicke, Zell, & Bloom, in press; Zell & Alicke, 2009), but it might not occur to the same degree among all people. For example, individual differences in collective self-esteem might moderate local dominance (McFarland & Buehler, 1995). People who are highly concerned about the status of their membership groups might be more attentive to intergroup or general comparison feedback than are most people in general.

Individual differences in ambition might moderate local dominance. Highly ambitious individuals often strive to move beyond the level of success that is afforded by their immediate local environment, whether it be their school, work-place, or neighborhood. For this reason, ambitious people might monitor their level of success generally rather than locally.

Other individual difference factors may affect the degree to which people exert cognitive resources when processing local and general comparisons. Conscientiousness individuals tend to be hard-working, organized, thoughtful, and goal directed (John & Srivastava, 1999). People who score high in the personality factor known as “need for cognition” enjoy complex thinking and solving difficult problems (Cacioppo & Petty, 1982). Finally, individuals who score low in the personality factor known as “need for closure” tend to make decisions quickly with little deliberation, and seize on accessible and easy to process information during this process (Webster & Kruglanski, 1994).

People with high conscientiousness, high need for cognition, or low need for closure should be less prone to local dominance because they may devote careful attention to general comparisons when other people neglect this information to spare cognitive resources.

Finally, individual differences in self-assessment motivation may affect local dominance. Self-assessment motivation is reflected by a desire to have an accurate self-image, and underlies information seeking and processing which facilitate this goal (Wood, 1989). Local dominance effects might be reduced when self-assessment motives are strong. Self-assessment concerns might lead individuals to more carefully process general comparison standards, and it might lead individuals to bypass self-enhancement processes which can bias the processing of unfavorable general comparisons (Buckingham & Alicke, 2002; Zell & Alicke, 2009).

Other Tasks and Outcomes

Another potential moderator of local dominance involves the importance of the domain or task. Previous social comparison theory and research indicates that the self-evaluative consequences of social comparisons are typically stronger when the comparison occurs in a domain that is self-relevant (Tesser, 1988). Although the local dominance effect has been observed with several laboratory tasks, including tests of lie detection ability (Alicke, Zell, & Bloom, in press; Buckingham & Alicke, 2002) and verbal reasoning ability (Zell & Alicke, 2009), it remains to be seen whether local dominance occurs in other domains that may be of greater importance and self-relevance (e.g., social skills, general intelligence).

Previous research has focused on the relative impact of local and general comparisons on self-evaluations (Alicke, Zell, & Bloom, in press; Buckingham & Alicke, 2002; Zell & Alicke, 2009). However, it remains to be seen whether local dominance obtains on other important outcome measures such as performance and decision making. Several studies have linked self-evaluations to subsequent performance, decision making, and behavior (see Swann et al., 2007), yet future research is needed to specifically show that local dominance extends to these and other outcomes.

Conclusions

Social comparison theory has recently been expanded to incorporate not only local comparisons with peers and ingroup members, but also comparisons with generalized targets such as the average person (Buckingham & Alicke, 2002; Klein, 1997). The research reported in this review highlights the importance of the distinction between comparisons that are relatively “local” from those that are relatively more “general” in understanding social comparison consequences. When people have both feedback sources, as they often do in their day-to-day lives, the influence of local comparison dominates and supersedes the influence of general comparison. A more nuanced approach to social comparison which considers how people respond to multiple to comparisons sources will be essential for future researchers interested in measuring social comparison reactions as they occur in everyday experience.

References

- Alicke, M. D., LoSchiavo, F.M., Zerbst, J. I., & Zhang, S. (1997). The person who outperforms me is a genius: Esteem maintenance in upward social comparison. *Journal of Personality and Social Psychology*, 73, 781–789.
- Alicke, M. D., Zell, E., & Bloom, D. L. (in press). Mere categorization and the frog-pond effect. *Psychological Science*.
- Allport, G. (1954). *The nature of prejudice*. New York: Doubleday/Anchor.
- Asch, S. E. (1955). Opinions and social pressure. *Scientific American*, 193, 31-35.
- Aquino, K., Griffeth, R. W., Allen, D. G., & Hom, P. W. (1997). Integrating justice constructs into the turnover process: A test of a referent cognitions model. *Academy of Management Journal*, 40, 1208-1227.
- Barbey, A. K., & Sloman, S. A. (2007). Base-rate respect: From ecological rationality to dual processes. *Behavioral and Brain Sciences*, 30, 241-297.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Bargh, J. A. (1997). The automaticity of everyday life. In R. S. Wyer (Ed.), *Advances in social cognition* (Vol. 10, pp. 1–61). Mahwah, NJ: Erlbaum.
- Berkowitz, L., Fraser, C., Treasure, F. P., & Cochran, S. (1987). Pay equity, job gratifications, and comparisons in pay satisfaction. *Journal of Applied Psychology*, 72, 544–551.

- Blanton, H. (2001). Evaluating the self in the context of another: The three selves model of social comparison assimilation and contrast. In G. B. Moskowitz (Ed.), *Cognitive social psychology: The Princeton Symposium on the Legacy and Future of Social Cognition* (pp. 75–87). Mahway, NJ: Erlbaum.
- Borgida, E., & Nisbett, R. E. (1977). The differential impact of abstract vs. concrete information on decisions. *Journal of Applied Social Psychology*, 7, 258-271.
- Brown, J. D., Novick, N. J., Lord, K. A., & Richards, J. M. (1992). When Gulliver travels: Social context, psychological closeness, and self-appraisals. *Journal of Personality and Social Psychology*, 62, 717–727.
- Buckingham, J. T., & Alicke, M. D. (2002). The influence of individual versus aggregate social comparison and the presence of others on self-evaluations. *Journal of Personality and Social Psychology*, 83, 1117–1130.
- Buss, D. M. (2009). The great struggles of life: Darwin and the emergence of evolutionary psychology. *American Psychologist*, 64, 140-148.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42, 116–131.
- Campbell, D. T. (1958). Common fate, similarity, and other indices of the status of aggregates of persons as social entities. *Behavioral Science*, 3, 14-25.
- Cash, T. F., Cash, D. W., & Butters, J. W. (1983). “Mirror, mirror, on the wall . . . ?”: Contrast effects and self-evaluations of physical attractiveness. *Personality and Social Psychology Bulletin*, 9, 351–358.

- Cole, J., & Dodge, K. A. (1988). Multiple sources of data on social behavior and social status. *Child Development*, 59, 815-829.
- Collins, R. L. (1996). For better or worse: The impact of upward social comparison on self-evaluations. *Psychological Bulletin*, 119, 51-69.
- Crocker, J., & Major, B. M. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96, 608-630.
- Davis, J. A. (1966). The campus as a frog pond: An application of theory of relative deprivation to career decisions for college men. *American Journal of Sociology*, 72, 17-31.
- Crosby, F. (1976). A model of egoistical relative deprivation. *Psychological Review*, 83, 85-113.
- Diehl, M. (1990). The minimal group paradigm: Theoretical explanations and empirical findings. *European Review of Social Psychology*, 1, 263-292.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276-302.
- Ditto, P. H., & Lopez, D. F. (1992). Motivated skepticism: The use of differential decision criteria for preferred and nonpreferred conclusions. *Journal of Personality and Social Psychology*, 63, 568-584.
- Dunn, E. W., & Ashton-James, C. (2008). On emotional innumeracy: Predicted and actual affective responses to grand-scale tragedies. *Journal of Experimental Social Psychology*, 44, 692-698.

- Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed self-assessment: Implications for health, education, and the workplace. *Psychological Science in the Public Interest*, 5, 69-106.
- Ehrlinger, J., Johnson, K., Banner, M., & Dunning, D. (2008). Why the unskilled are unaware: Further explorations of (absent) self-insight among the incompetent. *Organizational Behavior and Human Decision Processes*, 105, 98-121.
- Erikson, E. (1956). The problem of ego-identity. *Journal of the American Psychoanalytic Association*, 4, 56-121.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition*. New York: McGraw-Hill.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
- Gaertner, L., Sedikides, C., & Graetz, K. (1999). In search of self-definition: Motivational primacy of the individual self, motivational primacy of the collective self, or contextual primacy? *Journal of Personality and Social Psychology*, 76, 5-18.
- Gardner, W. L., Gabriel, S., & Hochschild, L. (2002). When you and I are "we," you are not threatening: The role of self-expansion in social comparison. *Journal of Personality and Social Psychology*, 82, 239-251.
- Gerrard, M., Gibbons, F.X., & Bushman, B.J. (1996). Relation between perceived vulnerability to HIV and precautionary sexual behavior. *Psychological Bulletin*, 119, 390-409.

- Gilbert, D. T., Giesler, R. B., & Morris, K. A. (1995). When comparisons arise. *Journal of Personality and Social Psychology*, 69, 227–236.
- Gilovich, T., Griffin, D., & Kahneman, D., eds. (2002). *Heuristics and biases: The psychology of intuitive judgment*. Cambridge University Press.
- Goethals, G. R., & Darley, J. M. (1977). Social comparison theory: An attributional approach. In J. M. Suls & R. L. Miller (Eds.), *Social comparison processes: Theoretical and empirical perspectives* (pp. 259–278). Washington, DC: Hemisphere.
- Goodman, P. S. (1974). An examination of referents used in the evaluation of pay. *Organizational Behavior and Human Performance*, 13, 170-1.
- Gray-Little, B., & Hafdahl, A. R. (2000). Factors influencing racial comparisons of self-esteem: A quantitative review. *Psychological Bulletin*, 126, 26-54.
- Green, J. D., Sedikides, C., & Gregg, A. P. (2008). Forgotten but not gone: The recall and recognition of self-threatening memories. *Journal of Experimental Social Psychology*, 44, 547–561.
- Griffeth, R. W., Vecchio, R. P., & Logan, J. W. (1989). Equity theory and interpersonal attraction. *Journal of Applied Psychology*, 74, 394-401.
- Harris, J. R. (1995). Where is the child's environment? A group socialization theory of development. *Psychological Review*, 102, 458-489.
- Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford Press.

- Huguet, P., Dumas, F., Marsh, H., Regner, I., Wheeler, L., Suls, J., Seaton, M., & Nezlek, J.B. (2009). Clarifying the relationships between the Big-Fish-Little-Pond Effect (BFLPE) and social comparison : An integrative study. *Journal of Personality and Social Psychology*, 97, 156-170.
- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102-138). New York: Guilford.
- Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*, 80, 237-251.
- Kindermann, T. A. (1993). Natural peer groups as contexts for individual development: The case of children's motivation in school. *Developmental Psychology*, 29, 970-977.
- Klein, W. M. (1997). Objective standards are not enough: Affective, self-evaluative, and behavioral responses to social comparison information. *Journal of Personality and Social Psychology*, 72, 763-774.
- Klein, W. M. P. (2003). Effects of objective feedback and "single other" or "average other" social comparison feedback on performance judgments and helping behavior. *Personality and Social Psychology Bulletin*, 29, 418-429.
- Klein, W. M. P., & Stefanek, M. E. (2007). Cancer risk elicitation and communication: Lessons from the psychology of risk perception. *CA: A Cancer Journal for Clinicians*, 57, 147-167.

- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence leads to inflated self-assessments. *Journal of Personality and Social Psychology* 77, 1121–34
- Law, K. S., & Wong, C. (1998). Relative importance of referents on pay satisfaction: A review and test of a new policy-capturing approach. *Journal of Occupational & Organizational Psychology*, 71, 47–60.
- Lawler, E. E., III (1971). *Pay and organizational effectiveness: A psychological view*. New York: McGraw-Hill.
- Locke, K. D. (2007). Personalized and generalized comparisons: Causes and consequences of variations in the focus of social comparisons. *Personality and Social Psychology Bulletin*, 33, 213-225.
- Lockwood, P., & Kunda, Z. (1997). Superstars and me: Predicting the impact of role models on the self. *Journal of Personality and Social Psychology*, 73, 91–103.
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, 71, 616-628.
- Major, B., & Forcey, B. (1985). Social comparisons and pay evaluations: Preferences for same-sex and same-job comparisons. *Journal of Experimental Social Psychology*, 21, 393–405.
- Major, B., Sciacchitano, A., & Crocker, J. (1993). In-group versus out-group comparisons and self-esteem. *Personality and Social Psychology Bulletin*, 19, 711-721.

- Markman, K. D., & McMullen, M. N. (2003). A reflection and evaluation model of comparative thinking. *Personality and Social Psychology Review*, 7, 244–267.
- Marsh, H. W. (1987). The big-fish–little-pond effect on academic self-concept. *Journal of Educational Psychology*, 79, 280–295.
- Marsh, H. W., & Hau, K. (2003). Big-Fish-Little-Pond effect on academic self-concept: A cross-cultural (26-country) test of the negative effects of academically selective schools. *American Psychologist*, 58, 364–376.
- Marsh, H. W., Kong, C., & Hau, K. (2000). Longitudinal multilevel models of the big-fish-little-pond effect on academic self-concept: Counterbalancing contrast and reflected-glory effects in Hong Kong schools. *Journal of Personality and Social Psychology*, 78, 337–349.
- Marsh, H. W., & O'Mara, A. (2008). Reciprocal effects between academic self-concept, self-esteem, achievement, and attainment over seven adolescent years: Unidimensional and multidimensional perspectives of self-concept. *Personality and Social psychology Bulletin*, 34, 542–552.
- Marsh, H. W., & Parker, J. (1984). Determinants of student self-concept: Is it better to be a relatively large fish in a small pond even if you don't learn to swim as well? *Journal of Personality and Social Psychology*, 47, 213–231.
- Martin, J. (1981). Relative deprivation: A theory of distributive injustice or an era of shrinking resources. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (Vol. 3, pp. 53–107). Greenwich, CT: JAI Press.

- McFarland, C., & Buehler, R. (1995). Collective self-esteem as a moderator of the frog-pond effect in reactions to performance feedback. *Journal of Personality and Social Psychology*, 68, 1055-1070.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 371-378.
- Miller, C. T. (1984). Self-schemas, gender, and social comparison: A clarification of the related attributes hypothesis. *Journal of Personality and Social Psychology*, 46, 1222-1228.
- Miller, D. T., Turnbull, W., & McFarland, C. (1988). Particularistic and universalistic evaluation in the social comparison process. *Journal of Personality and Social Psychology*, 55, 908-917.
- Morse, S., & Gergen, K. J. (1970). Social comparison, self-consistency, and the concept of self. *Journal of Personality and Social Psychology*, 16, 148-156.
- Mussweiler, T. (2003). Comparison processes in social judgment: Mechanisms and consequences. *Psychological Review*, 110, 472-489.
- Mussweiler, T., & Rüter, K. (2003). What friends are for! The use of routine standards in social comparison. *Journal of Personality and Social Psychology*, 85, 467-481.
- Mussweiler, T., Rüter, K., & Epstude, K. (2004). The man who wasn't there: Subliminal social comparison standards influence self-evaluation. *Journal of Experimental Social Psychology*, 40, 689-696.

- Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology*, 29, 611-621.
- Pickett, C. L. (2001). The effects of entitativity beliefs on implicit comparisons between group members. *Personality and Social Psychology Bulletin*, 27, 515-525.
- Pickett, C. L., & Perrott, A. (2004). Shall I compare thee? Perceived entitativity and ease of comparison. *Journal of Experimental Social Psychology*, 40, 283-289.
- Pyszczynski, T., Greenberg, J., Solomon, S., Arndt, J., & Schimel, J. (2004). Why do people need self-esteem? A theoretical and empirical review. *Psychological Bulletin*, 130, 435-468.
- Runciman, W. G. (1966). *Relative deprivation and social justice: A study of attitudes to social inequality in twentieth-century England*. Berkeley, CA: University of California Press.
- Seaton, M., Marsh, H., & Craven, R. G. (2009). Earning its place as a pan-human theory: Universality of the Big-Fish-Little-Pond Effect (BFLPE) across 41 culturally and economically diverse countries. *Journal of Educational Psychology*, 101, 403-41.
- Senik, C. (in press). Direct evidence of income comparisons and their welfare effects. *Journal of Economic Behavior and Organization*.
- Sherif, M. (1936). *The psychology of social norms*. New York: Harper Collins.
- Smith, H. J., & Leach, W. (2004). Group membership and everyday social comparison experiences. *European Journal of Social Psychology*, 34, 297-308.

- Stapel, D. A., & Blanton, H. (2004). From seeing to being: Subliminal social comparisons affect implicit and explicit self-evaluations. *Journal of Personality and Social Psychology*, 87, 468–481.
- Stapel, D. A., & Blanton, H. (Eds.) (2007). *Social comparison theories*. New York: Psychology Press.
- Suls, J., & Wheeler, L. (Eds.) (2000). *Handbook of social comparison*. New York: Plenum/Kluwer Academic Publishing Corp.
- Swann, W. B., Chang-Schneider, C., & McClarty, K. L. (2007). Do people's self-views matter? Self-concept and self-esteem in everyday life. *American Psychologist*, 62, 84-94.
- Sweeney, P. D., & McFarlin, D. B. (2005). Wage comparisons with similar and dissimilar others. *Journal of Occupational and Organizational Psychology*, 78, 113-131.
- Tajfel, H., Billig, M., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behavior. *European Journal of Social Psychology*, 1, 149-177.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193–210.
- Taylor, S. E., Wood, J. V., & Lichtman, R. R. (1983). It could be worse: Selective evaluation as a response to victimization. *Journal of Social Issues*, 39, 19-40.

- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 181-227). New York: Academic Press.
- Trope, Y., & Liberman, N. (2003). Temporal construal. *Psychological Review*, 110, 403-421.
- Tversky, A., & Kahneman, D. (1974) Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1124-1131.
- Twenge, J. M., & Crocker, J. (2002). Race, ethnicity, and self-esteem: Meta-analyses comparing Whites, Blacks, Hispanics, Asians, and Native Americans, including a commentary on Gray-Little and Hafdahl (2000). *Psychological Bulletin*, 128, 371-408.
- Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin*, 119, 488-531.
- Weinstein, N. D. (1987). Unrealistic optimism about susceptibility to health problems: Conclusions from a community-wide sample. *Journal of Behavioral Medicine*, 10, 481-500.
- Wheeler, L. (1966). Motivation as a determinant of upward comparison. *Journal of Experimental Social Psychology*, 2(Suppl. 1), 27-31.
- Wheeler, L., & Miyake, K. (1992). Social comparison in everyday life. *Journal of Personality and Social Psychology*, 62, 760-773.

- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin*, 106, 231-248.
- Zajonc, R. B. (1965). Social facilitation. *Science*, 149, 269-274.
- Zell, E., & Alicke, M. D. (2009). Contextual neglect, self-evaluation, and the frog-pond effect. *Journal of Personality and Social Psychology*, 97, 467-482.
- Zell, E., & Alicke, M. D. (2008a). [Information concreteness and the local dominance effect]. Unpublished raw data.
- Zell, E., & Alicke, M. D. (2008b). [Social categorization and the local dominance effect]. Unpublished raw data.

Table 1

Evidence for the Local Dominance Effect.

Topic	Key References	Dependent Measures	Key Finding
The frog-pond effect	(Mark, Kong, & Hau, 2000; Huguet et al., 2009)	Academic self-concept ratings	Students focused on their standing within classes/ schools when rating themselves.
Individual versus aggregate comparison	(Buckingham & Alicke, 2002)	Self-evaluations of ability	Comparison with one present peer had a greater impact than comparison with the average student.
Local versus general comparison	(Zell & Alicke, 2009)	Self-evaluations of performance and ability; mood	Comparisons with a few people had a greater impact than comparisons with many people.
Mere categorization and self-evaluation	(Alicke, Zell, & Bloom, in press)	Self-evaluations of performance and ability	Ranking best in a small group and 6 th place overall led to higher self-assessments than ranking worst in a small group and 5 th place overall.

Table 2

Explanations of the Local Dominance Effect.

Explanation	Key References
Perceived usefulness	Zell & Alicke, 2009
Information concreteness	Zell & Alicke, unpublished raw data
Social categorization	Zell & Alicke, unpublished raw data
Information ease	Zell & Alicke, 2009
Self-enhancement and self-protection	Buckingham & Alicke, 2002; Zell & Alicke, 2009
Proximity	Buckingham & Alicke, 2002; Zell & Alicke, 2009
Entitativity	N/A
Evolutionary perspectives	N/A
Developmental perspectives	N/A

Figure 1

Hierarchical feedback levels along the local-general continuum.

Figure 2

Specific comparisons which reveal the frog-pond effect in self-evaluation (Zell & Alicke, 2009; Study 1).

Figure 3

Self-evaluations as a function of local and general comparison (Zell & Alicke, 2009, Study 1).

Figure 4

Specific comparisons which reveal the frog-pond effect in self-evaluation (Zell & Alicke, 2009; Study 2).

Figure 5

Self-evaluations as a function of local and general comparison (Zell & Alicke, 2009, Study 2).

Figure 6

Self-evaluations as a function of local and general comparison (Zell & Alicke, 2009, Study 4).

Figure 7

Specific comparisons which reveal the local dominance effect in self-evaluation (Zell & Alicke, 2009; Study 4).

Figure 8

Self-evaluations as a function of feedback condition (Alicke, Zell, & Bloom, in press).

Figure 9

Sample feedback in the information concreteness study.

Participant _____

*** REPRESENTS YOUR SCORE

<u>ALL OHIO STUDENTS SCORES</u>										<u>TODAY'S SCORES</u>
04	14	17	19	21	22	24	25	26	28	25
06	15	17	19	21	22	24	25	26	28	28**
08	15	17	19	21	22	24	25	26	28	29
08	15	17	19	21	22	24	25	25	28	30
08	16	17	19	21	22	24	25	26	28***	30
08	16	17	19	21	22	24	25	26	29	31
09	16	17	19	21	22	24	25	26	29	32
09	16	17	19	21	22	24	25	26	29	32
09	16	17	19	21	22	24	25	26	29	35
09	16	17	19	21	22	24	25	26	29	36
09	16	17	19	21	23	24	25	26	30	
11	16	17	19	21	23	24	25	26	30	
11	16	17	19	21	23	24	25	26	30	
11	16	17	19	21	23	24	25	26	31	
11	16	17	19	21	23	24	25	26	31	
11	16	17	20	21	23	24	25	26	31	
12	16	17	20	21	23	24	25	26	31	
12	16	17	20	21	23	24	25	26	31	
12	16	17	20	21	23	24	25	27	32	
12	16	17	20	21	23	24	25	27	32	
12	16	17	20	21	23	24	25	27	32	
12	16	17	20	22	23	24	25	27	32	
12	16	17	20	22	23	24	25	27	32	
14	16	17	20	22	23	24	25	27	33	
14	16	18	20	22	23	24	25	27	33	
14	16	18	20	22	23	24	25	27	33	
14	16	18	20	22	23	24	26	27	33	
14	16	18	20	22	23	24	26	27	33	
14	16	18	20	22	23	24	26	27	34	
14	16	18	20	22	23	24	26	27	34	
14	16	18	20	22	23	24	26	27	34	
14	16	18	20	22	23	24	26	27	35	
14	16	18	20	22	23	24	26	27	35	
14	16	18	20	22	23	24	26	27	36	
14	16	18	20	22	23	24	26	27	36	
14	16	18	20	22	23	24	26	27	36	
14	16	18	20	22	23	25	26	27	36	
14	16	18	20	22	23	25	26	27	37	
14	16	18	20	22	23	25	26	27	37	
14	16	18	20	22	23	25	26	27	37	
14	16	18	20	22	23	25	26	27	37	
14	16	18	20	22	23	25	26	27	38	
14	16	18	21	22	23	25	26	27	38	
14	16	18	21	22	24	25	26	27	39	
14	16	18	21	22	24	25	26	27	39	
14	17	18	21	22	24	25	26	28	39	
14	17	18	21	22	24	25	26	28	40	
14	17	19	21	22	24	25	26	28	40	
14	17	19	21	22	24	25	26	28	40	
14	17	19	21	22	24	25	26	28	40	