



Marketing Science Institute Working Paper Series 2010
Report No. 10-117

Understanding How to Achieve Competitive Advantage Through Regulatory Fit: A Meta-Analysis

Dhruv Grewal, Scott Motyka, Nancy M. Puccinelli, Anne L.
Roggeveen, Ahmad Daryanto, Ko de Ruyter, and Martin Wetzels

"Understanding How to Achieve Competitive Advantage Through Regulatory Fit: A Meta-Analysis" © 2010 Dhruv Grewal, Scott Motyka, Nancy M. Puccinelli, Anne L. Roggeveen, Ahmad Daryanto, Ko de Ruyter, and Martin Wetzels; Report Summary © 2010 Marketing Science Institute

MSI working papers are distributed for the benefit of MSI corporate and academic members and the general public. Reports are not to be reproduced or published, in any form or by any means, electronic or mechanical, without written permission.

Report Summary

In recent years, researchers in such diverse areas as psychology, marketing, and organizational behavior have investigated the concept of regulatory fit. Regulatory fit is the match between people's regulatory focus—either promotional (pleasure seeking) or preventative (risk avoiding)—and their strategy for pursuing goals or the consequences they focus on when making decisions. This research is of interest to marketers because the evidence suggests that a match between a customer's orientation and the marketer's communication strengthens the customer's positive attitudes and behaviors toward the brand. Studies have investigated different sources of regulatory fit, different methods of stimulating regulatory fit, the scope of fit, and boundary conditions.

In this meta-analysis, a team of scholars led by Dhruv Grewal examines 202 studies conducted over 13 years (1998–2010) to provide insight into how regulatory fit affects seven dependent variables: evaluation, behavioral intention, processing, fluency, feeling right, feeling confident, and affect. They consider the roles of five moderators: source of regulatory focus (momentary or chronic), how momentary focus is primed (through self-reflection or through a reflection on one's situation), type of regulatory fit (a match between one's focus and a decision process or between one's focus and a decision outcome), fit scope (incidental or integral), and fit match (ways in which a match is created, e.g., based on decision style or on self-view).

Their analysis indicates that regulatory fit has a significant effect on all the dependent measures. The effects are strongest when the source of regulatory fit is subtle—that is, when consumers' attention is not called to the fact that they are experiencing regulatory fit—and when the decisions consumers are making are less deliberative (i.e., require less thought). These findings underscore the unconscious level at which regulatory fit effects appear to operate: they appear to work best when people use them non-reflectively, as a decision-making heuristic.

Specifically, the researchers find robust regulatory fit effects for both chronic and momentary sources of regulatory focus, but chronic sources of regulatory focus are stronger. In the case of momentary focus, they find that effects are stronger when a situation primes the focus than when personal reflection primes the focus.

They find that both process-based and outcome-based regulatory fit yield strong effects. Outcome-based fit effects yield enhanced responses (both positive and negative responses become more positive), whereas process-based fit effects yield polarized responses (positive responses become more positive, while negative responses become more negative).

For fit scope, the researchers find that integral fit (that is, fit that is generated in a way that relates directly to the decision or task at hand) produces stronger effects than incidental fit (fit that is generated in a way that is unrelated to the decision or task at hand).

Finally, of the types of fit match that the researchers investigate, the strongest results are generated by the framing method and the hedonic-versus-utilitarian method.

There are several implications for marketing managers. First, it is worthwhile to assess or prime customers' regulatory focus and then craft communications messages that appeal to the regulatory focus, thereby creating regulatory fit—which will strongly influence purchase decisions. For example, managers might frame their advertising appeal to elicit a promotion or prevention orientation and then match their slogan to fit the specified orientation – inducing regulatory fit.

The researchers also note that emerging research suggests that in certain circumstances, regulatory non-fit may actually have stronger effects than regulatory fit. This is one of many possible areas of future research.

Dhruv Grewal is the Toyota Chair of Commerce and Electronic Commerce and Professor of Marketing, Babson College. Scott Motyka is a Doctoral Candidate in Social and Developmental Psychology at Brandeis University. Nancy M. Puccinelli (Upton) is Associate Fellow at the Saïd Business School, Oxford University and Assistant Professor of Marketing at the College of Business Administration, Northeastern University. Anne L. Roggeveen is Associate Professor of Marketing, Babson College. Ahmad Daryanto is Lecturer in Marketing at Lancaster University Management School, Lancaster University. Ko de Ruyter is Professor of Interactive Marketing and International Service Research, and Chair of the Department of Marketing at Maastricht University. Martin Wetzels is Professor of Supply Chain and Market Research with the Department of Marketing at Maastricht University.

Acknowledgments

The authors appreciate the helpful comments of Joseph G. Cunningham, Aparna Labroo and Kent Monroe.

Imagine two customers, Steve and Bob, who are thinking about buying cars. Steve wants a great car that will enhance his image, such as the new sporty models that he believes will promote an image of success. Bob instead is more concerned about avoiding accidents and injuries. He thus is drawn to cars with better crash-test ratings and safety features that can help him prevent harm. These hypothetical characters epitomize an important focus in recent consumer research, namely, the impact of regulatory fit on evaluations and behaviors (Higgins 2006; Higgins et al. 2003; Lee and Aaker, 2004; Pham and Higgins 2005). Regulatory fit is an exciting, multi-disciplinary, and quickly evolving field. In the past 10-15 years, since regulatory focus (Higgins 1997) and fit (Higgins 2000) were first introduced, researchers have published more than 120 articles on the topic, in a number of different fields, with the majority in top-tier journals. Researchers in such diverse areas as psychology, marketing, sociology, economics, and organizational behavior to name a few are all actively incorporating this theory into their understanding of human behavior.

The variety of ways in which researchers define regulatory fit in the literature attests to the breadth of the regulatory fit concept. Researchers suggest that “people experience regulatory fit when they make decisions in a way that matches their [regulatory] orientation” (Lee and Higgins 2009, 320). Similarly, regulatory fit can depend “on the value that is created by the decision outcome satisfying the orientation need or concern” (Avnet and Higgins 2006, 3). Some researchers refer to the latter definition as regulatory relevance; however, for the sake of simplicity we refer to both as regulatory fit. While regulatory fit effects can apply to a range of regulatory orientations (e.g., locomotion and assessment, Avnet and Higgins 2003), the majority of research investigates promotion and prevention orientations and how they lead people to seek

to satisfy their nurturance (promotion focus) or security (prevention focus) needs (e.g., Higgins 1997). As a consequence, we focus on promotion and prevention orientations as a basis for fit.

We build on several excellent qualitative review articles that highlight conceptual and methodological heterogeneity in this research domain and suggest important issues to be resolved (e.g., Aaker and Lee 2006; Avnet and Higgins 2006; Cesario, Higgins and Scholer 2008; Lee and Higgins 2009; Pham and Higgins 2005; Pham and Avnet 2009). This meta-analysis explores the impact of the components of fit, the boundary conditions of fit, and methodological factors. As we highlight below each of these factors may have a differential impact on fit effects. This meta-analysis also captures and explores the variety of dependent variables researchers use to measure regulatory fit effects such as evaluations (e.g., Wan, Hong and Sternthal 2009), behaviors (e.g., Forster, Higgins and Idson 1998), and behavioral intentions (Cesario, Grant, and Higgins 2004, study 1). The variety of and breadth in regulatory fit effects reinforces the need for a comprehensive, quantitative review of the domain addressing key issues and providing a basis for future research.

As researchers study regulatory fit they rely on different sources of regulatory focus (i.e., chronic measurement vs. momentary priming). Do different sources lead to differences in fit effects? Research on frequency and recency effects might inform this question with frequency effects supporting the strength of chronic focus and recency effects supporting the strength of momentary focus. Chronic focus, which has developed over time as a result of repeated exposure to focus-relevant messages might have a greater impact on regulatory fit similar to frequency effects. Alternatively, momentary focus would seem to benefit from closer temporal proximity to the outcome variable similar to recency effects and yield stronger regulatory fit effects.

Researchers use a variety of momentary primes including asking a person to focus on a general situation (e.g., completing word fragments; Lee, Keller and Sternthal 2010, study 3) or reflect on their own lives or self (e.g., imagining going on a trip with family; Lee et al. 2010, study 1). Based on past research that demonstrates that regulatory fit effects are weaker when involvement is higher (Wang and Lee 2006) we might expect that self-generated primes that are likely to be more involving than situation-generated ones, might show more modest effects.

Further need for clarification stems from variation in how researchers create fit effects. Regulatory fit can involve a match between regulatory focus and the goal-pursuit strategy (i.e., process-based fit) or consequences (i.e., outcome-based fit). There have been differences in opinion in the literature as to whether process-based regulatory fit effects are truly different from outcome-based regulatory fit effects (Avnet and Higgins 2006; Aaker and Lee 2006). As we will discuss in more detail later, process-based regulatory fit is thought to lead to polarization in attitudes while outcome-based regulatory fit is thought to lead to enhancement of attitudes (Higgins 2002).

Researchers identify a number of ways to create a match between an individual's regulatory focus and a subsequent task to create fit. We refer to this as "fit match" and examine differences between studies that create fit through, for example, framing (e.g., Monga and Zhu 2005, study 1), self-view (e.g., Aaker and Lee 2001), and affective versus substantive information (e.g., Pham and Avnet 2004). It would be valuable to shed insight onto the differential size of the regulatory fit effect as a function of the different methods researchers have developed to induce fit.

An emerging area has been the inquiry into the scope of fit. Fit can occur both within the persuasion task (integral methods e.g., Murali and Pons 2009) and independent of the persuasion task (incidental methods e.g., Hong and Lee 2008, study 4). However, it is unclear

whether there are differences in the strength of the effects as a function of integral versus incidental fit.

The literature identifies several boundary conditions of regulatory fit. The most well-established is a person's level of involvement with low levels of involvement leading to greater regulatory fit effects. Similarly, one might expect service categories to be more involving than product categories rendering smaller regulatory fit effects (Palmatier et al. 2006).

This meta-analysis provides insights into how the wide variance in creation and limits of regulatory fit differentially impact fit effects across a variety of dependent measures. As the first paper to quantitatively explore the differential impact of the components and boundary conditions of fit, it offers a consolidation and deeper understanding of existing research as well as an important foundation for future investigations.

A CONCEPTUAL FRAMEWORK

Regulatory Focus

Regulatory focus theory argues that a regulatory orientation motivates people to think and act in specific ways. Someone with a promotion focus orientation seeks to achieve pleasurable positive outcomes; a prevention-focused person instead seeks to avoid painful negative outcomes. In the opening paragraph, Steve the promotion-focused car buyer aspired to enhance his ideal image, but careful Bob adopted a prevention focus and sought to prevent an accident as an ideal outcome. Regulatory focus can also vary for a specific objective. For example, marketers might encourage an automobile customer to think about the importance of shortening a commute to prime a promotion focus or the importance of being unable to shorten a commute to prime a prevention focus (Herzenstein, Posavac, and Brakus 2007).

Regulatory focus theory originates from self-discrepancy theory (Higgins 1987, 1989), according to which self-evaluation results from comparisons of the actual self against an ideal self that is characterized by attributes the person aspires to possess (e.g., enhanced image) or against an ought self who is characterized by attributes that the person believes he or she should possess (e.g., safety consciousness). Higgins observes that people possess predilections or tendencies toward one or the other form of self-evaluation (Higgins et al. 1994), so they are more likely to compare their actual self to either their ideal or their ought self. These tendencies also help predict people's regulatory modes (Higgins et al. 1994). People prone to actual-ideal comparisons tend to self-regulate using a promotion focus that emphasizes achieving positive outcomes; however, people prone to actual-ought comparisons tend to self-regulate using a prevention focus that emphasizes the avoidance of negative outcomes.

Early work in this area conceived of a promotion versus prevention focus as an individual difference, though researchers quickly discovered that marketers could easily prime these orientations in consumers. For example, marketers might offer cash reimbursement as an incentive for loyalty and thus prime a promotion focus, or else they could enable loyal customers to avoid an extra payment, which primes a prevention focus (Daryanto et al. 2010). Researchers argue that these patterns of self-regulation are part of socialization in childhood (Higgins 1987), such that at different stages of development, children learn associations between their behavior and positive or negative outcomes. Caregivers can advance a promotion focus by responding positively or advance a prevention focus by responding negatively to a behavior (Higgins 1989). If a child waves, the caregiver may smile and encourage the child, which emphasizes a positive outcome and fosters a promotion focus. Thus, people learn to self-regulate through interactions with others, though socialization efforts that emphasize advancement, aspirations, and

accomplishments likely produce a greater tendency toward a promotion focus, and those that emphasize protection, safety, and responsibility initiate a tendency toward a prevention focus. Motivated by nurturance needs, a promotion focus emphasizes approach-oriented strategies or objectives; a prevention focus instead is motivated by security needs and emphasizes avoidance-oriented strategies or objectives (Forster et al. 1998; Higgins 1997; Pham and Avnet 2009).

There appear to be widespread differences among people in different cultures that may stem from differences in these socialization practices. People from cultures that emphasize independence and individualism tend to possess a more promotion-focused orientation; people from cultures emphasizing interdependence and collectivism tend to possess a more prevention-focused orientation (see Lee, Aaker and Gardner 2000; Pham and Avnet 2004). Independence might be traced to a history of voluntary settlement (Kitayama et al. 2009), such that early European emigrants aspiring to a better life in the Americas tended to be more promotion focused, while their prevention-focused counterparts stayed behind.

Although the origins of regulatory focus theory derive from observations of individual differences in self-regulatory tendencies, momentary situational factors also can induce a regulatory focus. For example, situational factors relate to presentations of a decision, whether in a gain frame to create a promotion focus (e.g., an ad emphasizes the energy that grape juice creates) or a loss frame to create a prevention focus (e.g., an ad emphasizes the diseases grape juice prevents; Lee and Aaker 2004; Shah and Higgins 1997; Zhou and Pham 2004). Similarly, regulatory focus can be influenced by whether the incentives are presented in terms of an accomplishment (promotion) or safety (prevention) (Shah, Higgins, and Friedman 1998).

Regulatory Fit Effects

For the purposes of this investigation, regulatory fit is defined as a match between a person's regulatory focus and his or her strategy for pursuing goals or the consequences emphasized as part of the focal decision (Higgins 2002). The concept of regulatory fit suggests that when people "adopt goal pursuit strategies or engage in activities that sustain their regulatory orientation," they experience a positive feeling because of their sense of regulatory fit (Aaker and Lee 2006, p.15). Although regulatory fit appears to yield more favorable evaluations and behavior, when an initial reaction is negative, regulatory fit can render the overall reaction even more negative (e.g., Aaker and Lee 2001). Therefore, regulatory fit "is better conceptualized as a magnifier than as an enhancer of attitudes" (Lee and Higgins 2009, p. 329).

Building on regulatory focus theory though, regulatory fit refers to the generally positive experience people have when the context, message, or decision matches their regulatory focus. In such a situation, the person experiences a feeling of "rightness" about the activity being undertaken (Freitas and Higgins 2002; Higgins 2000); the person feels better about what he or she is doing. This feeling also transfers to valuations of objects and thus strengthens evaluations of those objects (e.g., increased willingness to pay) (Higgins et al. 2003). Regulatory fit similarly influences the persuasiveness of messages (e.g., Cesario, Higgins, and Scholer 2007, Lee and Aaker 2004), attitude toward products (e.g., Aaker and Lee 2001, Cesario, Grant and Higgins 2004), and the valuation of a chosen object (e.g., Avnet and Higgins 2003; Higgins et al. 2003).

In our meta-analysis we first examine the impact of regulatory fit on key measures (e.g., evaluation, behavioral intention, behavior, and processing). We then examine how the general effect of regulatory fit is influenced by: (1) components of regulatory fit, (2) boundary conditions of fit, and (3) methodological factors. Figure 1 provides an organizing framework for the meta-

analysis. Details pertaining to the dependent variables are in table 1 and details pertaining to the moderator variables are provided in table 2. (Tables and figures follow References.)

The Components of Fit: Moderating Factors

The basic formula for regulatory fit is a regulatory orientation (promotion/prevention) is captured (measured) or created (primed) within an individual. That individual is then instructed to pursue a goal in a manner which supports this orientation (Higgins 2000, 2005) or the individual is presented with consequences of the decision that are relevant to his/her regulatory orientation (Higgins 2002). However, there are numerous ways researchers apply this basic formula to create regulatory fit effects. In this section, we explore the role of five moderators related to the components of fit: (1) source of focus (momentary vs. chronic); (2) momentary focus prime (self vs. situation-generated); (3) fit type (process vs. outcome); (4) fit scope (incidental vs. integral); and (5) fit match (e.g., framing, self-view).

Source of Regulatory Focus: Chronic versus Momentary. Regulatory focus is thought to originate from one of two sources. It can either be the natural tendency of the individual (chronic) or it can be primed (momentary). When someone's existing regulatory-orientation is captured via standardized measures such as the regulatory focus questionnaire (e.g., Hong and Lee 2008, study 3), the selves questionnaire (e.g., Avnet and Higgins 2006), the self-strength guide task (e.g., Evans and Petty 2003), or the Lockwood scale (e.g., Zhao and Pechmann 2007) we consider the study to be examining a chronic source of focus.

When the focus is induced via the context or task instructions we consider the source of focus to be momentary. Momentary regulatory focus can be self-generated such as when someone lists their duties and obligations (prevention) or their hopes and aspirations (promotion)

(Frietas and Higgins 2002, study 2). Alternatively, momentary regulatory focus can be situation-generated such as when someone completes word fragments for words associated with prevention (e.g., d_ty -duty) or promotion (e.g., e_g_r -eager; Lee et al. 2010, study 3).

Because someone's chronic focus is rooted in childhood experience and based on repeated experience over a lifetime, we might expect this source of focus to have a more profound effect on consumer thought and behavior than momentary focus. The effects of chronic focus would appear to operate similar to that of frequency effects. Research on frequency effects finds that the more someone encounters a stimulus, the more that stimulus is cognitively available and impacts a decision to a greater extent (Tversky and Kahneman 1974). In the same way, a chronic focus toward accomplishments or safety would seem to lead to frequent thoughts related to these concerns thereby reinforcing the focus.

Despite this consistency in people's natural tendency towards a given regulatory orientation the ability to prime promotion or prevention in someone is well-documented (Idson, Liberman, and Higgins 2004, studies 1 and 2; Lee et al. 2010, studies 1 and 2; Zhou and Pham 2004, study 4). Moreover, research on recency effects would predict that the effect of momentary regulatory focus would lead to equal if not greater regulatory fit effects than a chronic orientation. Like a recency effect, momentary regulatory focus benefits from closer temporal proximity to a decision. For example, shortly after completing a word fragment task designed to prime prevention or promotion, participants evaluate an ad (Lee et al. 2010, study 3). Research on recency effects finds that stimuli presented in close temporal proximity to an outcome variable are more cognitively available and thus more likely to impact the outcome variable (Deese and Kaufman 1957; Pieters and Bijmolt 1997). Thus, a momentary induction of promotion or prevention focus immediately before a task might seem to yield a greater

regulatory fit effect. There is an on-going debate around the relative strength of frequency compared to recency effects thus it is difficult to anticipate whether chronic or momentary focus would show stronger effects (Chalmers 2005; Van Overschelde 2002). Next we will discuss the role of two commonly used methods to induce momentary focus.

How Momentary Focus is Primed: Self or Situation. There are primarily two ways in which momentary regulatory focus can be induced: self or situation-generated. We define self-generated as any regulatory focus prime that is of or related to the self such as when participants reflect on their own lives or imagine themselves in a situation as part of the prime. Thus, asking people to think about and list duties, obligations and responsibilities (prevention) or hopes, aspirations, and dreams (promotion) (Lee et al. 2010, study 1) is an example of a self-generated prime. Another example is asking people to imagine winning (promotion) or losing (prevention) a championship (Aaker and Lee 2001, studies 2-4).

We define situation-generated primes as instances in which people encounter a stimulus or context (unrelated to the self) designed to trigger a prevention or promotion focus. For example, completing word fragments such as (duty) or (eager) which prime prevention or promotion, respectively (Lee et al. 2010, study 3). Another example is completing a maze task framed as a mouse seeking cheese (promotion) or escaping an owl (prevention) (Zhang and Mittal 2007).

We explore whether the strength of regulatory fit effects varies as a function of the nature of the prime. Self-generated primes may have a stronger regulatory fit effect due to the rich self-knowledge people possess and the accessibility of this knowledge (Markus 1977; Mussweiler and Neumann, 2000). Alternatively, the greater accessibility of self-knowledge may lead self-generated primes to make people more aware of the source of feeling right, attenuating the fit

effect (Cesario et al., 2004). Situation-generated primes may make people less aware of regulatory fit as the source of their feeling right compared to situation-generated primes and thus increase the regulatory fit effect. Research demonstrates that regulatory fit effects only occur when the person is less consciously aware of the source of feeling right and are eliminated when people's attention is drawn to the source of feeling right (Cesario et al. 2004, study 3; Vaughn et al. 2009, study 2; Vaughn et al. 2006, studies 1, 3). Now that we have laid out two key issues pertaining to the source of regulatory focus, it is important to assess potential differences as a function of the source of regulatory fit such as the use of a process versus an outcome-based approach to create fit.

Regulatory Fit Type: Process versus Outcome. Regulatory fit can be created by matching the process of goal pursuit or the outcome of the goal to one's regulatory focus. In studies using process-fit, the manipulation of regulatory fit prompts people to adopt strategies associated with prevention or promotion. For example, people will list eagerness-related action plans "to make sure everything goes right" (promotion) or vigilance-related action plans to "avoid anything that could go wrong" (prevention) (Freitas and Higgins 2002, study 2) to match the process to a person's regulatory focus. In contrast, outcome fit is created when the consequences of a decision are aligned with someone's regulatory orientation (Higgins 2002). That is, outcome-based regulatory fit "leverages the outcome to which people with distinct regulatory goals are sensitive" (Aaker and Lee 2006, 16). For example, people may consider the benefits to be gained (promotion) or risks to be avoided (prevention) from drinking grape juice (Lee and Aaker, 2004, studies 1, 4 and 5) that match a person's regulatory focus.

There has been some debate about the nature of the effects of fit that result from a process versus outcome-based approach. The majority of regulatory fit studies examine positive

contexts and find that regulatory fit leads to more favorable attitudes and behavior, however, the mechanism researchers propose underlies these effects is hypothesized to be different for process versus outcome-based fit (Avnet and Higgins 2006; Cesario et al. 2008). Researchers suggest that process-based fit makes attitudes more polarized and intense (Avnet and Higgins 2006). Positive attitudes become more positive and negative attitudes become more negative when people feel right about their reaction to the message (Cesario et al. 2008). In contrast, some researchers suggest that outcome-based fit leads to enhancement, whereby all attitudes become more favorable whether they be positive or negative (Avnet and Higgins 2006). Assuming this to be true then it is only in negative scenarios, which elicit negative reactions, that a difference in mechanism can be detected. Our investigation seeks to examine these differences between process and outcome-based fit. Related to the means by which fit is created is evidence that regulatory fit effects extend to incidental tasks, or tasks that are separate from the manipulation of regulatory fit.

Fit Scope: Incidental versus Integral. Research finds that not only do we see regulatory fit effects when regulatory fit is integral to the dependent variable (e.g., evaluation of a fit inducing persuasive message) but that regulatory fit effects can carry-over to judgments that are incidental to the source of regulatory fit (Cesario et al. 2008). Integral fit occurs when “fit is induced by manipulating something integral to or within the actual persuasion situation” (Cesario et al. 2008, 450). For example, rating attitudes toward a brand for which an ad for the brand created regulatory fit (Lee and Aaker, 2004; studies 1, 2, and 4a).

Incidental fit occurs when fit is “induced prior to, and completely independent of, the persuasive message itself” (Cesario et al. 2008, 450). For example, rating black and white photographs of dogs as part of a purportedly separate study following a fit manipulation that

involves developing action plans designed to achieve prevention and promotion goals (Higgins et al. 2003, study 4). In this paper, we extend the traditional definition of incidental and integral to include situations in which the fit manipulation is integral or incidental to the dependent variable that may or may not involve a persuasive message.

Since incidental fit occurs prior to the dependent variable, there is necessarily a greater time delay between when the fit is experienced and the dependent variable is measured than when the dependent variable is integrated into the regulatory fit manipulation. This increased time delay may lead the effects of regulatory fit to dissipate similar to short-term memory (Estes 1997). Thus, it might be expected that incidental fit effects will be somewhat weaker than integral fit effects. Alternatively, when regulatory fit is integral to the dependent variable, it may increase conscious awareness of fit effects on feeling right and thereby reduce its effects on the dependent variable (Cesario et al. 2004). The current investigation aims to test differences in regulatory fit effects on integral as opposed to incidental dependent variables. Considering regulatory fit more generally we also examine the effect of the varied means by which the match between focus and fit is achieved in the next section.

Regulatory Fit Match. Regulatory fit can be created a number of different ways. People can use preferred means for goal pursuit (e.g., a specific decision style) that leads them to feel right about what they are doing and increase their strength of engagement (Cesario et al. 2008). The message argument or topic can be framed in such a way that people feel right about the message or their reaction to the message (Cesario et al. 2004; Lee and Aaker 2004). The mode of presentation (e.g., the message source's nonverbal behavior) can also fit the orientation of an individual making a message more persuasive (Cesario and Higgins 2008). This represents a small sample of the ways in which fit match is created. We have sought to capture the numerous

ways in which the literature has created fit match by classifying them into six categories: (1) decision style (e.g., attribute-based [prevention] vs. alternative-based [promotion]; Murali and Pons 2009), (2) eager/vigilant strategies (e.g., attending all classes [promotion] vs. avoiding missing any classes [prevention]; Freitas and Higgins 2002, study 1), (3) framing (e.g., gaining a discount [promotion] vs. avoiding a penalty [prevention]; Monga and Zhu 2005, study 1), (4) hedonic versus utilitarian (e.g., superior on a hedonic [promotion] vs. utilitarian [prevention] dimension; Chernev 2004, studies 1-3), (5) mode of presentation (e.g., simultaneous [prevention] vs. sequential [promotion] presentation of feature information; Wan et al. 2009, studies 3-4), and (6) self-view (e.g., independent [promotion] vs. interdependent [prevention] prime; Aaker and Lee 2001, study 1).

As we describe above, there is a multitude of ways regulatory fit match may occur. Variation in regulatory fit effects across these different types of fit has yet to be explored or theorized. Our analysis of fit match represents an exploratory first step into this domain. Next we examine two boundary conditions that are thought to limit regulatory fit effects.

The Limits of Fit: The Moderating Impact of Boundary Conditions

In addition to understanding how the components of regulatory fit may moderate regulatory fit effects, our investigation tests two boundary conditions of fit: a) involvement (Lee and Higgins 2009;) and b) product versus service category.

Involvement. Research has shown that when people's attention is drawn to the true source of feeling right regulatory fit effects are eliminated (Cesario et al. 2004, study 3; Vaughn et al. 2006, studies 1, 3). Consistent with this finding, research shows that when people are highly involved regulatory fit effects are attenuated (Wang and Lee 2006). High involvement motivates

people to make unbiased decisions and engage in more elaborate systematic processing (Chaiken and Stangor 1987). It follows from this that increased elaboration increases the likelihood that people will identify the true source of feeling right (Lee and Higgins 2009). An experiment by Wang and Lee (2006) demonstrate that when participants believe a product they are about to evaluate is targeted at them and will be launched in their local market (high involvement) they are more likely to systematically attend to all pertinent information and not be influenced by regulatory fit effects. However, when they are told the product they are about to evaluate is in the development stage and the manufacturer is conducting a survey on a large sample to receive preliminary feedback (low involvement) regulatory fit effects are observed. It seems that in low involvement situations regulatory fit serves as a heuristic cue that guides people's attitudes and decisions. However, when the context motivates people to elaborate more extensively they rely on other cues to form their judgment. Thus, we expect that regulatory fit effects will be stronger under low involvement conditions.

In our meta-analysis we define low or high involvement as conditions in which someone's motivation is low or high due to explicit manipulation as in Wang and Lee (2006) or individual differences (e.g., need for cognition, Evans and Petty 2003). We also code studies as high or low involvement using study characteristics (e.g. personal relevance) as a proxy. Extending the ecological validity of this review of regulatory fit effects we next consider the moderating role of product category.

Product Category. In our test of product category, we explore whether the effects of regulatory fit differ in a product versus a service context. In a recent meta-analysis of relationship marketing, Palmatier et al. (2006) find that customers are likely to be more involved in both the production and consumption of services than products. The researchers suggest that

this is a result of the less tangible nature of and greater variability in quality in service contexts (Zeithaml, Parasuraman, and Berry 1985). Thus, similar to the moderating effects of involvement, we might expect that consumer decisions around services would be more involving and show attenuated fit effects (Wang and Lee 2006). For example, we would expect the evaluation of a toothpaste (Wang and Lee 2006) to be less involving than the evaluation of a vacation (Mogilner, Aaker, and Pennington 2008, study 2) leading to greater regulatory fit effects for toothpaste.

Study-Design Considerations: Methodological Moderators

To assess the generalizability of regulatory fit effects over a variety of contexts, we also explore the role of three methodological factors. We focus in particular on those study characteristics that show the greatest variability across the research but that can also be reliably coded. We examine: research domain (health marketing, non-health marketing, and psychology/other), type of participant (student: undergraduate or younger, versus non-student: graduate students or non-students), and type of incentive provided to participants (course credit versus money).

METHOD

Because meta-analysis integrates data from a large number of studies, it offers a more powerful test and reliable estimate of the effect of regulatory fit. Consistent with meta-analytic practice we calculate the mean effect size of regulatory fit across studies. Building on this initial result, we explore the extent to which variability in the size of the effect across studies can be explained by moderator variables.

Meta-analytic Procedures

Data Collection. We synthesize 13 years (1998-2010) of empirical research (published and unpublished) on the strength of regulatory fit effects based on an extensive literature search that includes scanning journals, conference proceedings, and personal communications with scholars in the field. We searched ABI/INFORM, ACR proceedings and SCP proceedings, Proquest, Google Scholar, Scirus, SSRN, and EBSCO (Business Source Premier, PsycINFO, and PsycArticles), as well as many individual journals including (but not limited to): *Journal of Consumer Research*, *Journal of Marketing*, *Journal of Marketing Research*, *Journal of Consumer Psychology*, *Organizational Behavior and Human Decision Processes*, *Journal of Personality and Social Psychology*, *Personality and Social Psychology Bulletin*, *Journal of Experimental Social Psychology*, and *Psychological Science*. We then examined bibliographies of the articles from these sources and did web searches. Finally, we requested papers through a LISTSERV. The search process produced more than 100 articles.

Inclusion Criteria. The data set draws on 202 studies with a total of 22,062 participants reported in 94 articles (the references are available from the authors). Given that many studies examine more than one dependent variable we obtained 376 independent effect sizes. Meta-analysis requires that the design of the studies and research questions be comparable to enable integration. The selected studies manipulated either regulatory fit or could be classified as regulatory fit based on the procedures reported. Furthermore, we require that appropriate statistics for calculating effect sizes (e.g., critical values, appropriate descriptive information) appear in the article or can be obtained through direct contact with the authors. As we focus on promotion and prevention regulatory fit effects, we exclude the few papers that examine

locomotion versus assessment orientations (e.g., Avnet and Higgins 2003, Kruglanski et al. 2000).

Effect Size Measure. We use Pearson's r as our scale free measure of the degree of relationship between regulatory fit and a particular dependent variable. To calculate the regulatory fit effect, we use standard formulas (Borenstein et al. 2009) that are calculated from the available statistics, such as F -values ($df = 1$) (see Fern and Monroe 1996; Hullett and Levine 2003; Rosenthal, Rosnow and Rubin 2000; Rosenthal 1991; see Appendix for information on effect-size calculation).

Some studies merely indicate that the F is non-significant (or $F < 1$). Following Rosenthal's (1991) recommendations, we assign these effects a value of r equals 0, which yields conservative estimates of the overall effects. When an F -value is not available, we use an appropriate alternative statistic (e.g., t and $\chi^2(1)$). Studies that do not include statistics appropriate for meta-analysis and for which we cannot obtain appropriate statistics from the authors are excluded.

Data Coding. All studies were coded by at least two independent coders. Overall inter-rater reliability is quite high ($\kappa > 90\%$), and any disagreements were resolved through discussion. Coders reduced the dependent variables reported into eight categories: evaluation, behavioral intention, behavior, processing, fluency, feeling right, feeling confident, and affect. Effect sizes are coded such that a positive effect size indicates fit, and a negative effect size indicates lack of fit. Fit is conceptualized as the interaction between regulatory focus and match of decision style, eagerness/vigilance strategies, framing, hedonic versus utilitarian context, mode of presentation, or self-view. For example, regulatory fit is the match between promotion (prevention) and eagerness (vigilance) strategies (e.g., Freitas and Higgins 2002, study 1).

In a positive context, effect sizes are coded positively when regulatory fit yields a more positive reaction, whether due to polarization or enhancement. However, in a negative context when outcome-based fit yields a more positive reaction it is coded positively in line with enhancement and when process-based fit yields more negative reactions in line with polarization it is coded positively. This is consistent with Higgins (2002). We identify a number of important moderator variables that we classify as components of regulatory fit (source of focus, momentary focus prime, fit type, fit scope, and fit match), boundary conditions of regulatory fit (involvement, and product category), and methodological factors (research domain, type of participant, type of incentive).

Data Analysis. To analyze our data we use the Comprehensive Meta-Analysis Software program (Borenstein et al. 2006). In addition to the mean effect sizes and heterogeneity statistics we report “file drawer N ,” which represents the number of unpublished null effect studies (i.e., studies that have not been published because of their null results, $r = .00$), necessary to bring the significant effect down to a level that is just significant (i.e., $p = .05$) and is thought to be a good indicator of robustness (Rosenthal 1991). If possible, we correct the effect sizes for any attenuation due to measurement effects (Hunter and Schmidt 2004).

To maintain the independence of effect sizes, we adopt the procedures described below. We classify the effect sizes into the specific dependent variables categories: evaluation, behavioral intention, behavior, processing, fluency, feeling right, feeling confident, and affect. If a study reported more than one effect size for any one of these categories, we average the effects sizes within that category before entering them into the analysis, thus any study or subsample would contribute only one effect size per dependent variable maintaining independence of the effect sizes (Borenstein et al. 2009).

A significant Q statistic from the analysis of heterogeneity suggests the importance of examining moderators of the regulatory fit effect. Following the analysis of main effects, we consider each moderator separately. Throughout our discussion of the results, we focus on the sample-weighted, reliability-adjusted effect size (r).

RESULTS

Main Effect

We first examine the main effect of regulatory fit on evaluation, behavioral intention, behavior, processing, fluency, feeling right, feeling confident, and affect. We report the simple average effect size, the weighted average effect size r , as well as the fixed z , the 95% confidence interval (Hunter and Schmidt 1990), and the file drawer N (Rosenthal 1991) for the regulatory fit effect on each of the dependent variables (see table 3). Positive mean effect sizes indicate regulatory fit results in higher scores on the dependent variable; negative mean effect sizes indicate that nonfit results in higher scores on the dependent variable. If the confidence interval does not include 0, the effect is significant.

We find regulatory fit has a significant effect on evaluation ($r = .24, p < .001$, file drawer $N = 29,679$), behavioral intention ($r = .21, p < .001$, file drawer $N = 5,217$), behavior ($r = .28, p < .001$, file drawer $N = 6,915$), processing ($r = .25, p < .001$, file drawer $N = 3,254$), fluency ($r = .31, p < .001$, file drawer $N = 567$), feeling right ($r = .27, p < .001$, file drawer $N = 27$), and feeling confident ($r = .23, p < .005$, file drawer $N = 66$). Regulatory fit strengthens the effect on each of these variables. Further the file drawer results also demonstrate that the effect of regulatory fit is robust and not likely to reflect a publication bias. For example, it would require the existence of over 29,000 unpublished null effects to reduce the statistical significance of the

regulatory fit effect on evaluation to the .05 one-tailed level. We also find a small but significant effect of regulatory fit on affect ($r = .10$, $p < .001$, file drawer $N = 997$).

Moderator Variables: Components of Regulatory Fit

The specific statistics reported are the average sample-weighted reliability-adjusted average r for each level of the moderator, the number of effects, and whether the effects differ across the components of fit, the boundary conditions of fit, and the methodological factors (see tables 4-5). When analyzing the impact of a moderator variable on a given dependent variable, we use all available data points (i.e., studies that manipulate a specific moderator variable may provide data for more than one dependent variable). Due to missing data, the number of observations we use to test each moderator varies. Further, given the small number of studies on feeling right and feeling confident and the small effect for affect, we do not examine these dependent variables in the moderator analysis.

Source of Focus. Our evidence supports robust regulatory fit effects for both chronic and momentary regulatory focus. However, consistent with a frequency effects account of the results, we find a significantly stronger regulatory fit effect for chronic compared to momentary sources of regulatory focus for behavior ($r_{\text{chronic}} = .37$, $r_{\text{momentary}} = .24$, $Q(1) = 15.26$, $p < .001$).

In a recent contribution, Haws, Dholakia and Bearden (2010) assess the validity of five measures of chronic regulatory focus. Building on Haws et al. (2010), we do an exploratory analysis of the regulatory fit effect as a function of the chronic focus measure used. Given the prevalence of RFQ as a measure of chronic focus we compare it to the other chronic measures in use. Where we have enough effect sizes, RFQ yields a smaller effect for evaluation ($r_{\text{RFQ}} = .15$, $n = 6$; $r_{\text{other}} = .26$, $n = 11$; $Q(1) = 4.11$, $p < .05$) and comparable effects for behavior ($r_{\text{RFQ}} = .37$, $n =$

7; $r_{\text{other}} = .38$, $n = 7$; $Q(1) = .01$, n.s.). The mixed findings support Haws et al.'s (2010) assertion that the best measure is likely a composite of existing measures.

Momentary Focus Prime. Momentary regulatory focus induced through a self or situation-generated prime both show strong regulatory fit effects. Consistent with the notion that a self-generated prime may make people more aware of regulatory fit effects and the source of their feeling right, our results find that the regulatory fit effects following a situation-generated prime are significantly larger than those following a self-generated prime for behavior ($r_{\text{situation-generated}} = .28$, $r_{\text{self-generated}} = .21$, $Q(1) = 5.22$, $p < .05$) and processing ($r_{\text{situation-generated}} = .31$, $r_{\text{self-generated}} = .21$, $Q(1) = 5.52$, $p < .05$). Thus, it seems the attention to feeling right resulting from a self-generated prime reduces the regulatory fit effect. A prime that relies on the individual participant reflecting on his or her personal experiences dilutes the regulatory fit effect for behavior and processing. This could be considered akin to Cesario et al.'s (2004, study 3) finding that attention to the source of feeling right reduces the regulatory fit effect.

Fit Type. Regulatory fit has been conceptualized as resulting from a match between regulatory focus and either the process (Higgins et al. 2003) or the outcome (Aaker and Lee 2006) of a decision. Our research finds that both process and outcome-based regulatory fit yield comparably strong regulatory fit effects. For Fit Type it has been suggested that rather than yielding enhancement effects, outcome-based fit yields polarization effects (Aaker and Lee 2006). To test this possibility we conduct an ad hoc analysis of negative situations coding all effects in line with polarization (i.e., support for polarization is coded as a positive effect and support for enhancement is coded as a negative effect). We find stronger regulatory fit effects for process than outcome-based fit for evaluation ($r_{\text{process fit}} = .13$, $r_{\text{outcome fit}} = -.14$, $p < .001$). Consistent with Higgins (2002) a polarization model appears to better predict process-based fit

effects while an enhancement model better predicts outcome-based fit effects in the studies we examine.

Fit Scope. Recent research calls into question whether regulatory fit effects vary as a function of the fit manipulation occurring separate from or as part of a persuasion task (termed incidental and integral fit, respectively; cf. Koenig et al. 2009). Our results indicate that integral fit tends to lead to stronger regulatory fit effects on behavioral intention ($r_{\text{integral}} = .22$, $r_{\text{incidental}} = .15$, $Q(1) = 4.37$, $p < .05$).

Fit Match. We also explore whether the strength of the regulatory fit effect is influenced by the fit induction employed. We found that the method of fit match did indeed affect the size of the effect. Regulatory fit effects are quite robust across all means of fit match. Considering the results overall, we find the most consistently strong results for the framing and hedonic versus utilitarian fit manipulations. Looking at specific dependent variables we find the most robust effects for behavior when self-view ($r = .42$) is used and for processing when hedonic versus utilitarian is used ($r = .44$).

Moderator Variables: Boundary Conditions of Regulatory Fit

Involvement and Category. The results strongly support Wang and Lee's (2006) research, demonstrating stronger fit effects in low involvement conditions. This is observed for evaluation ($r_{\text{high inv.}} = .08$, $r_{\text{low inv.}} = .24$, $Q(1) = 22.08$, $p < .001$), behavioral intention ($r_{\text{high inv.}} = .03$, $r_{\text{low inv.}} = .22$, $Q(1) = 14.90$, $p < .001$), and processing ($r_{\text{high inv.}} = .05$, $r_{\text{low inv.}} = .28$, $Q(1) = 20.08$, $p < .001$). Similarly, the results support stronger fit effects for products (as compared to services) for evaluation ($r_{\text{products}} = .24$, $r_{\text{services}} = .18$, $Q(1) = 6.07$, $p < .01$) and processing ($r_{\text{products}} = .24$, $r_{\text{services}} = .06$, $Q(1) = 3.88$, $p < .05$). Consistent with previous research low involvement conditions

(Wang and Lee 2006) and less involving product evaluation yield larger regulatory fit effects.

Moderator Variables: Methodological Moderators

We examine whether three methodological factors (domain, participant, and incentive) moderate the regulatory fit effect. Regulatory fit effects have been studied across several domains and we find different average effect sizes depending upon the domain of publication. The health marketing and psychology domains demonstrate consistently high effect sizes for behavior ($r_{\text{health marketing}} = .39$, $r_{\text{non-health marketing}} = .21$, $r_{\text{psychology/other}} = .29$, $Q(2) = 16.44$, $p < .001$). Non-health marketing has the strongest effect for evaluation ($r_{\text{health marketing}} = .19$, $r_{\text{non-health marketing}} = .27$, $r_{\text{psychology/Other}} = .22$, $Q(2) = 16.03$, $p < .001$).

Concerning type of participant, our results suggest stronger fit effects for students and (vs. non-students) for evaluation ($r_{\text{students}} = .24$, $r_{\text{non-students}} = .18$, $Q(1) = 4.06$, $p < .05$) and processing ($r_{\text{students}} = .25$, $r_{\text{non-students}} = .07$, $Q(1) = 5.06$, $p < .05$). It is important to note that most of the research we evaluate used student samples with far fewer studies using non-student samples (e.g., the number of effect sizes for the non-student group for behavior is 3 and for processing is 2). Thus, we recommend that further research should focus on more diverse populations and investigate the effects of regulatory fit across various samples before any conclusions can be drawn for those populations.

It is reassuring to find that the type of incentive offered to participants, whether it be course credit or money, does not influence regulatory fit effects. The results are consistent across both categories of incentive. However, caution is warranted in making generalizations from these findings as there are only five effect sizes that measure behavioral intention or behavior and offer course credit.

DISCUSSION

Key Findings

The present investigation provides unequivocally strong evidence of the regulatory fit effect. While variability in the effect is observed, the effect remains significant across a range of dependent variables and contexts. The effects of regulatory fit are significant and are moderately large in size (e.g., $r = .24$ for evaluation and $r = .28$ for behavior) with the lone exception of affect ($r = .10$). Although the moderators explain a considerable amount of heterogeneity in the results, the main effect of regulatory fit is significant across the levels of the moderator variables for most cases attesting to the robust nature of this effect. An examination of the findings overall suggests that regulatory fit effects are especially strong when regulatory fit is subtle and the decision is less conscious, requiring little deliberation. It is our observation that the pervasive effect of regulatory fit is under-recognized within marketing practice. Moreover, this effect is likely to be strongest for everyday decisions about which people typically think less.

Components of Fit

This meta-analysis adds to existing research on regulatory fit by identifying the moderating role of four components of regulatory fit (i.e., source of focus, momentary focus prime, fit scope and fit match). The results suggest that the regulatory fit effect on behavior is stronger when a chronic measure is the source of regulatory focus than when the source is momentary. This is perhaps not surprising given the deep-rooted source of chronic regulatory focus compared to momentary regulatory focus (Higgins 1997). It also suggests that a frequency effect may better predict regulatory fit effects than a recency effect. Additional research on the role of regulatory focus, especially as a function of socialization would provide interesting

insights.

We also find that the regulatory fit effect is stronger when it is situation rather than self-generated. Thus, it seems that when the source of focus is momentary, stronger effects are observed when researchers induce regulatory focus, for example, by having participants consider a mouse navigating a maze to seek cheese (situation-promotion) or avoid an owl (situation-prevention), compared to having them list their hopes (self-promotion) or obligations (self-prevention). A possible explanation for this effect is the degree to which each type of prime is involving for and raises an individual's awareness of the source of feeling right and regulatory fit effects. The extensive self-reflection often involved in the typical self-generated prime would seem to render the task more involving and attenuate the effects of fit (Wang and Lee 2006, Cesario et al. 2004). For Fit Scope, we find that decisions integral to the source of regulatory fit show a stronger effect of regulatory fit than decisions that are incidental to the source of regulatory fit for behavioral intention. This is perhaps not surprising given the decreased time delay between the manipulation of regulatory fit and the measure of behavioral intention for integral decisions. Finally, for behavior, among the strongest effects are observed for the self-view fit match. Similar to a chronic source of focus, a self-view manipulation may tap into a more robust source of regulatory fit. Further, we note that these effects are largely exclusive to the dependent variable of behavior. Research finds that behavior often reflects less-conscious processes than evaluations do (Chartrand 2005; Dijksterhuis et al. 2005). Thus, it may be that behavior is more dramatically affected by regulatory fit as a heuristic cue than other dependent variables. Interestingly, we can draw a parallel across the three components of regulatory fit that moderate regulatory fit effects. In each case the source of regulatory fit effects are quite subtle (e.g., a mouse in a maze) and may even be outside the individual's conscious awareness (e.g.,

chronic focus stemming from childhood). The less conscious nature of each of these components seems to strengthen the regulatory fit effect. Impressively, these subtle, largely non-conscious effects are remarkably enduring. The effects of regulatory fit are as strong for an incidental decision as one that is integral to the source of regulatory fit across all dependent variables with the exception of behavioral intention.

Our research addresses an important controversy regarding the differences between process versus outcome-based regulatory fit. Consistent with previous theorizing we find that process-based fit yields polarization and outcome-based fit yields enhancement (Higgins 2002). Further, this effect is comparable across dependent variables. Our results demonstrate that both fit types produced similar effect sizes. Under positive conditions, both types of fit resulted in more positive effects (as would be predicted by both polarization and enhancement effects). However, under negative conditions, process fit results in polarization and outcome fit results in enhancement. In this paper we examine process and outcome within the context of the regulatory fit manipulation. An unexplored area is the impact of process versus outcome-based regulatory focus on regulatory fit effects. A post-hoc analysis of process versus outcome-based focus finds that process-based focus yields stronger effects for evaluation ($r_{\text{process focus}} = .29$, $r_{\text{outcome focus}} = .21$; $Q(1) = 14.91$, $p < .001$) and processing ($r_{\text{process focus}} = .28$, $r_{\text{outcome focus}} = .24$; $Q(1) = 6.54$, $p < .01$).

Boundary Conditions

Our research bolsters existing research that finds that that regulatory fit effects are stronger when people are less consciously aware of regulatory fit either because their attention has not been drawn to it (Cesario et al. 2004) or they have not been motivated to more extensively elaborate (Wang and Lee 2006). Wang and Lee (2006) hypothesize and find that

regulatory fit effects tend to be larger when consumers are in a low as opposed to a high involvement situation, because in low involvement situations, regulatory fit operates like a heuristic. This reasoning seems consistent with research in the broader domain of consumer behavior that reveals greater effects of information cues for consumers in a low involvement situation because they process information peripherally or heuristically (e.g., Petty, Cacioppo and Shumann 1983). Consistent with this reasoning, our meta-analysis finds that regulatory fit effects are greater for evaluation, behavioral intention and processing for low involvement tasks and greater for evaluation and processing for products (compared to services).

Further Research Directions

Meta-analyses, like any other study, suffer certain limitations. We attempt to explain heterogeneity in four principle main effects (i.e., role of regulatory fit in predicting evaluation, behavioral intention, behavior and processing) using three categories of potential moderators. While we try to be exhaustive in our analysis, it is possible that there are additional moderators that remain to be identified. Similarly, insufficient data prevent us from examining the moderation of regulatory fit effects on fluency, feeling right and feeling confident. Over time, as additional studies tackle these issues, it will be easier to reveal their effects.

Our research framework examines the main effect of regulatory fit on eight dependent variables. Recent research (e.g., Lee et al. 2010), suggests that the effects of regulatory fit on evaluation and behavior are mediated by processing, fluency, feeling right, and feeling confident. As we do not have access to the correlations among the different dependent variables, we cannot test these mediated relationships. Interestingly the regulatory fit effect sizes on processing, fluency, feeling right, and feeling confident are all of similar magnitude. Thus, it would be useful

to measure all of them within a given study and assess whether they are indeed capturing different constructs or an overall “feeling right” latent construct. The effect of regulatory fit on other potential mediators (e.g., feeling motivated; Lee et al. 2010; study 4) also needs empirical testing. A surprising finding is the small but significant regulatory fit effect on affect. Future research is needed to understand its role in regulatory fit effects (cf. Pham and Avnet 2004, 2009). More formal empirical studies that assess the degree to which different variables mediate the regulatory fit effect will explicate the underlying process by which regulatory fit strengthens evaluations and behaviors.

Research should also consider whether people may be motivated by orientations other than promotion and prevention (as initially suggested by Avnet and Higgins 2006). To understand the effects of a person’s self-concept/regulatory orientation, researchers should further explore regulatory dimensions such as locomotion and assessment (cf. Avnet and Higgins 2003, 2006). A preliminary analysis suggests comparably strong effects for locomotion and assessment ($r_{RF} = .23, n = 137; r_{fitloc/asses} = .26, n = 2; Q(1) = 0.04, p = n.s.$), however, the small number of studies on locomotion and assessment render this test underpowered suggesting a need for further research.

Recently, Higgins (2006) and Higgins and Scholer (2009) discussed the extension of regulatory fit theory to regulatory engagement theory (see also Pham and Avnet 2009). This recent theory which outlines the complicated relationships between regulatory fit, strength of engagement, motivational forces, behavior, and a host of other variables provides many avenues for additional inquiry. Another extension of the research worthy of investigation is that of regulatory nonfit. An emerging area of research suggests conditions under which nonfit may actually lead to stronger effects (Vaughn et. al. 2006). Vaughn and her colleagues find that

regulatory nonfit leads to greater correction in judgments relative to fit. It would be interesting to identify other instances in which nonfit yields stronger effects and might even lead people to abandon their regulatory focus to realize the benefits of nonfit.

Our investigation underscores the robustness of the regulatory fit effect and builds on previous research to refine extant understanding of its effects. Regulatory fit has a significant impact on each stage of consumer decision making, from the evaluation of a message to the consumer's actual choice. Moreover, regulatory fit effects appear to be moderated in important ways by factors such as the source of focus and fit as well as context. It seems that regulatory fit that originates from less conscious sources (e.g., chronic focus) and occurs in contexts characterized by less vigilance (e.g., low involvement) show stronger effects.

Managerial Implications

This meta-analysis identifies several key findings with important implications for business practice that managers can leverage in different ways (see Table 6). We focus in particular on two strategies: (1) assess the regulatory focus of customers using purchase behavior and (2) prime a regulatory focus through promotional materials, in-store kiosks, and general communications with customers. Having assessed or primed a customer's regulatory orientation, managers can then craft communications with the greatest appeal for these customers.

As an assessment strategy, managers could rely on several proxies to assess customer regulatory focus. In particular, the purchase behavior of customers should reveal their regulatory orientation, such that a customer who regularly buys sunscreen, insect repellent, and vitamins is likely more prevention oriented. In contrast, a customer who often buys premium ice cream, scented body lotion, and expensive cheese is probably more promotion oriented; these purchases

suggest a desire to achieve a pleasurable consumption experiences. Overall, a prevention orientation aligns with products that are safety-oriented and functional and that help customers prevent problems from occurring (Lee and Aaker 2004; Sengupta and Zhou 2007; Werth and Foerster 2007), whereas a promotion orientation aligns with products that are luxurious and pleasurable and that help customers maximize benefits (Chernev 2004; Jain 2006). By reviewing scanner data that tracks customer purchases, managers could identify the typical regulatory orientations of their customers and design advertising accordingly. For example, point-of-purchase displays in the vitamin aisle might highlight specific diseases or conditions prevented by certain vitamins and even include cross-promotions with other prevention-oriented products, such as fluoride treatments and antibacterial lotion.

Moreover, managers might prime or stimulate customers to consider either their promotion or prevention goals. Research shows that individual differences lead people to be relatively more promotion or prevention oriented, but prevention or promotion orientation also can be elicited effectively, and advertising is one of the most powerful tools to do so. In particular, promotion and prevention orientations align with specific communication tactics; telling people “You can do it!” prompts a promotion orientation, but “There is no better way” aligns with a prevention orientation (Keller 2006). Similarly, if an ad emphasizes how the brand is better than a competitor’s, it tends to elicit a promotion orientation, whereas an ad emphasizing the weaknesses of a competitor’s brand aligns with a prevention orientation.

By extension, managers might use such slogans to elicit a promotion or prevention orientation and then couple their slogan with product information that fits the specified orientation. This technique has been successful in mock sunscreen ads that primed the regulatory orientation and used a product benefit frame that fit the same orientation (e.g., “Don’t miss out

on being safe! Not knowing you are risk-free of sunburns may stand in the way of your feeling completely relaxed. Let SUNSKIN™ be a part of your daily routine. Don't Miss Out on Being Safe. SUNSKIN™"; Lee and Aaker 2004, p. 5-6). Beyond the consumer goods context, the context for presenting financial products also might elicit promotion or prevention orientations. For example, an investment opportunity described as an individual stock offered in a trading account primes a promotion orientation, but a mutual fund offered in an individual retirement account primes a prevention orientation (Zhou and Pham 2004). The opportunities for applying the findings of this study thus are abundant and offer a distinctive means to attain competitive advantages in challenging markets.

In conclusion, our findings have clear implications not only for consumer research but customer behavior as a whole. The way managers position a product or frame a message can have a dramatic effect on the consumers they attract. Understanding the needs and motivations of these consumer markets will enable managers to create more satisfying consumer experiences. For example, consumer packaged goods companies might consider strategic brand positioning that emphasizes either experience promotion or disease prevention, create messaging that reinforces that motivation, and design collateral materials that sustain value for the target consumer.

APPENDIX

Effect Sizes: We calculate the effect size for each study using the appropriate test statistics. We use r as the effect size measure. Some of the formulas (e.g., Fern and Monroe 1996; Rosenthal

1991) we use to calculate the effect sizes are shown here- r from t : $r = \sqrt{\frac{t^2}{t^2 + df}}$ where $df = n_1 +$

$n_2 - 2$; r from F : $r = \sqrt{\frac{F(1,-)}{F(1,-) + df\ error}}$ where $F(1, -)$ indicates any F with $df = 1$ in the

numerator; and r from χ^2 : $r = \sqrt{\frac{\chi^2(1)}{N}}$. We calculate r from means and standard deviations when

means and standard deviations are provided. First, Cohen's d is calculated ($d = \frac{M_1 - M_2}{\sigma_{pooled}}$) and then

converted to r ($r = \frac{d}{\sqrt{d^2 + 4}}$).

Correction for Measurement Error: When possible, we correct the effect sizes for any attenuation due to measurement effects using the following formula (Hunter and Schmidt 2004):

$r_c = \frac{r_{xy}}{\sqrt{r_{xx} r_{yy}}}$, where r_{xx} and r_{yy} represent the measurement reliabilities of variables x and y ,

respectively (r_{xy} equal to $r_{contrast}$ and r_{xx} equal to 1).

Combining Effect Sizes: To combine the effect sizes, the reliability adjusted r is converted to

Fisher's Z (Rosenthal 1991): $Z_i = 0.5 \times \ln\left(\frac{1+r_i}{1-r_i}\right)$ where \ln is the natural logarithm e

(2.718281828), r_i is the effect size being converted, and z_i is the resultant Fisher's z score.

Variance of Fisher's Z (Borenstein et al. 2009) is $V_z = \frac{1}{n-3}$ and standard error of Fisher's Z

(Borenstein et al. 2009): $SE_z = \sqrt{V_z}$. We test the overall main effects (table 3) using a random effects model (for formulas see Borenstein et al. 2009).

Heterogeneity of the effect sizes: We assess heterogeneity via the Q test (Borenstein et al. 2009):

$Q = \sum_{i=1}^k W_i (Y_i - M)^2$ where W_i is the study weight, Y_i is the study effect size, and M is the Fisher's z transformation of an individual study's effect. The degrees of freedom are $k-1$ where k is the current number of effects being integrated. If the effect is heterogeneous, then one tests for the effect of moderator variables. We assess the effects of the moderators (tables 4 and 5) using a fixed effect model, as the sample sizes are small in some groups. The moderator sample sizes may be smaller than those for the main effects as some categories have too few observations to conduct meaningful comparisons.

File Drawer N : Using Rosenthal's (1991) formula, file drawer N is calculated as $X = \frac{(\sum Z_i)^2}{(Z_{1-\frac{\alpha}{2}})^2} -$

k where k is the current number of studies employed and the term $z_{1-\alpha/2}$ usually refers to a z value of 1.645, representing a two-tail probability of 0.05.

References

- Aaker, Jennifer and Angela Y. Lee (2001), "'I' Seek Pleasures and 'We' Avoid Pains: The Role of Self-Regulatory Goals in Information Processing and Persuasion," *Journal of Consumer Research*, 28 (1), 33-49.
- ____ (2006), "Understanding Regulatory Fit," *Journal of Marketing Research*, 43 (1), 15-9.
- Avnet, Tamar and E. Tory Higgins (2003), "Locomotion, Assessment, and Regulatory Fit: Value Transfer from 'How' to 'What'," *Journal of Experimental Social Psychology*, 39 (5), 525-30.
- ____ (2006), "How Regulatory Fit Affects Value in Consumer Choices and Opinions," *Journal of Marketing Research*, 43 (1), 1-10.
- Borenstein, Michael, Larry V. Hedges, Julian P. T. Higgins, and Hannah R. Rothstein (2009), *Introduction to Meta-Analysis*, West Sussex, UK: Wiley.
- Borenstein, Michael, Larry V. Hedges, Julian P. T. Higgins, and Hannah R. Rothstein (2006), "Comprehensive Meta-Analysis (Version 2.2.027) [Computer software]," Englewood, NJ: Biostat.
- Brebels, Lieven, David De Cremer, and Constantine Sedikides (2008), "Retaliation as a Response to Procedural Unfairness: A Self-Regulatory Approach," *Journal of Personality and Social Psychology*, 95 (6), 1511-25.
- Briley, Donnel A. and Jennifer Aaker (2006), "When Does Culture Matter? Effects of Personal Knowledge on the Correction of Culture-Based Judgments," *Journal of Marketing Research*, 43 (3), 395-408.
- Cesario, Joseph, Heidi Grant, and E. Tory Higgins (2004), "Regulatory Fit and Persuasion: Transfer from 'Feeling Right'," *Journal of Personality and Social Psychology*, 86 (3), 388-404.
- Cesario, Joseph and E. Tory Higgins (2008), "Making Message Recipients 'Feel Right': How Nonverbal Cues Can Increase Persuasion," *Psychological Science*, 19 (5), 415-20.
- Cesario, Joseph, E. Tory Higgins, and Abigail A. Scholer (2008), "Regulatory Fit and Persuasion: Basic Principles and Remaining Questions," *Social and Personality Psychology Compass*, 2 (1), 444-63.
- Chaiken, Shelly and Charles Stangor (1987), "Attitudes and Attitude Change," *Annual Review of Psychology*, 38, 575-630.
- Chalmers, Kerry A. (2005), "Basis of Recency and Frequency Judgements of Novel Faces: Generalised Strength or Episode-specific Memories?," *Memory*, 13 (5), 484-498.
- Chartrand, Tanya L. (2005) "The Role of Conscious Awareness in Consumer Behavior," *Journal of Consumer Psychology*, 15 (3), 203-10.
- Chernev, Alexander (2004), "Goal-Attribute Compatibility in Consumer Choice," *Journal of Consumer Psychology*, 14 (1), 141-50.
- Daryanto, Ahmad, Ko Ruyter, Martin Wetzels, and Paul Patterson (2010), "Service Firms and Customer Loyalty Programs: A Regulatory Fit Perspective of Reward Preferences in a Health Club Setting," in *Journal of the Academy of Marketing Science*, Vol. 38, 604-16.
- Deese, James and Roger A. Kaufman (1957), "Serial Effects in Recall of Unorganized and Sequentially Organized Verbal Material," *Journal of Experimental Psychology*, 54 (3), 180-87.

- Dijksterhuis, Ap., Pamela K. Smith, Rick B. van Baaren, and Daniël H. J. Wigboldus (2005), "The Unconscious Consumer: Effects of Environment on Consumer Behavior," *Journal of Consumer Psychology*, 15(3), 193-202.
- Estes, W. K. (1997), "Processes of Memory Loss, Recovery, and Distortion," *Psychological Review*, 104 (1), 148-69.
- Evans, Lisa M. and Richard E. Petty (2003), "Self-Guide Framing and Persuasion: Responsibly Increasing Message Processing to Ideal Levels," *Personality and Social Psychology Bulletin*, 29 (3), 313-24.
- Fern, Edward F. and Kent B. Monroe (1996), "Effect-Size Estimates: Issues and Problems in Interpretation," *Journal of Consumer Research*, 23 (2), 89-105.
- Forster, Jens and E. Tory Higgins (2005), "How Global Versus Local Perception Fits Regulatory Focus," *Psychological Science*, 16 (8), 631-36.
- Forster, Jens, E. Tory Higgins, and Amy Taylor Bianco (2003), "Speed/Accuracy Decisions in Task Performance: Built-in Trade-Off or Separate Strategic Concerns?," *Organizational Behavior and Human Decision Processes*, 90 (1), 148-64.
- Forster, Jens, E. Tory Higgins, and Lorraine Chen Idson (1998), "Approach and Avoidance Strength During Goal Attainment: Regulatory Focus and the 'Goal Looms Larger' Effect," *Journal of Personality and Social Psychology*, 75 (5), 1115-31.
- Freitas, Antonio L. and E. Tory Higgins (2002), "Enjoying Goal-Directed Action: The Role of Regulatory Fit," *Psychological Science*, 13 (1), 1-7.
- Grimm, Lisa R., Arthur B. Markman, W. Todd Maddox, and Grant C. Baldwin (2008), "Differential Effects of Regulatory Fit on Category Learning," *Journal of Experimental Social Psychology*, 44 (3), 920-27.
- Haws, Kelly L., Utpal M. Dholakia, and William O. Bearden, "An Assessment of Chronic Regulatory Focus Measures," *Journal of Marketing Research*, 47 (5), 967-82.
- Herzenstein, Michal, Steven S. Posavac, and J. Josko Brakus (2007), "Adoption of New and Really New Products: The Effects of Self-Regulation Systems and Risk Salience," *Journal of Marketing Research*, 44 (2), 251-60.
- Higgins, E. Tory (1987), "Self-Discrepancy: A Theory Relating Self and Affect," *Psychological Review*, 94 (3), 319-40.
- ____ (1989), "Continuities and Discontinuities in Self-Regulatory and Self-Evaluative Processes: A Developmental Theory Relating Self and Affect," *Journal of Personality*, 57 (2), 407-44.
- ____ (1997), "Beyond Pleasure and Pain," *American Psychologist*, 52 (12), 1280-300.
- ____ (2000), "Making a Good Decision: Value from Fit," *American Psychologist*, 55 (11), 1217-30.
- ____ (2002), "How Self-Regulation Creates Distinct Values: The Case of Promotion and Prevention Decision Making," *Journal of Consumer Psychology*, 12 (3), 177-91.
- ____ (2005), "Value from Regulatory Fit," *Current Directions in Psychological Science*, 14 (4), 209-13.
- ____ (2006), "Value from Hedonic Experience and Engagement," *Psychological Review*, 113 (3), 439-60.
- Higgins, E. Tory, Lorraine Chen Idson, Antonio L. Freitas, Scott Spiegel, and Daniel C. Molden (2003), "Transfer of Value from Fit," *Journal of Personality and Social Psychology*, 84 (6), 1140-54.

- Higgins, E. Tory, Christopher J. R. Roney, Ellen Crowe, and Charles Hymes (1994), "Ideal Versus Ought Predilections for Approach and Avoidance Distinct Self-Regulatory Systems," *Journal of Personality and Social Psychology*, 66 (2), 276-86.
- Higgins, E. Tory and Abigail A. Scholer (2009), "Engaging the Consumer: The Science and Art of the Value Creation Process," *Journal of Consumer Psychology*, 19 (2), 100-114.
- Holler, Marianne, Erik Hoelzl, Erich Kirchler, Susanne Leder, and Lucia Mannetti (2008), "Framing of Information on the Use of Public Finances, Regulatory Fit of Recipients and Tax Compliance," *Journal of Economic Psychology*, 29 (4), 597-611.
- Hong, Jiewen and Angela Y. Lee (2008), "Be Fit and Be Strong: Mastering Self-Regulation through Regulatory Fit," *Journal of Consumer Research*, 34 (5), 682-95.
- Hullett, Craig R. and Timothy R. Levine (2003), "The Overestimation of Effect Sizes from *F* Values in Meta-Analysis: The Cause and a Solution," *Communication Monographs*, 70 (1), 52-67.
- Hunter, John E. and Frank L. Schmidt (1990). "Dichotomization of Continuous Variables: The Implications for Meta-Analysis," *Journal of Applied Psychology*, 75 (3), 334-49.
- ____ (2004). *Methods of Meta-Analysis: Correcting Error and Bias in Research Findings*, Newbury Park, CA: Sage Publications.
- Idson, Lorraine Chen, Nira Liberman, and E. Tory Higgins (2004), "Imagining How You'd Feel: The Role of Motivational Experiences from Regulatory Fit," *Journal of Personality and Social Psychology*, 30 (7), 926-37.
- Jain, Shailendra P., Nidhi Agrawal and Durairaj Maheswaran (2006), "When More may be Less: The Impact of Regulatory Focus on Responses to Different Comparative Frames," *Journal of Consumer Research*, 33 (1), 91-98.
- Keller, Punam A. (2006), "Regulatory Focus and Efficacy of Health Messages," *Journal of Consumer Research*, 33 (1), 109-14.
- Kirmani, Amna and Rui (Juliet) Zhu (2007), "Vigilant Against Manipulation: The Effect of Regulatory Focus on the Use of Persuasion Knowledge," *Journal of Marketing Research*, 44 (4), 688-701.
- Koenig, Anne M., Joseph Cesario, Daniel C. Molden, Spee Kosloff, and E. Tory Higgins (2009), "Incidental Experiences of Regulatory Fit and the Processing of Persuasive Appeals," *Personality and Social Psychology Bulletin*, 35 (10), 1342-55.
- Kruglanski, Arie W., Erik P. Thompson, E. Tory Higgins, M. Nadir Atash, Antonio Pierro, James Y. Shah, and Scott Spiegel (2000), "To 'Do the Right Thing' or to 'Just Do It': Locomotion and Assessment as Distinct Self-Regulatory Imperatives," *Journal of Personality and Social Psychology*, 79 (5), 793-815.
- Lalwani, Ashok K., L.J. Shrum, and Chi-yue Chiu (2009), "Motivated Response Styles: The Role of Cultural Values, Regulatory Focus, and Self-Consciousness in Socially Desirable Responding," *Journal of Personality and Social Psychology*, 96 (4), 870-82.
- Lee, Angela Y. and Jennifer L. Aaker (2004), "Bringing the Frame Into Focus: The Influence of Regulatory Fit on Processing Fluency and Persuasion," *Journal of Personality and Social Psychology*, 86 (2), 205-18.
- Lee, Angela Y., Jennifer L. Aaker, and Wendi L. Gardner (2000), "The Pleasures and Pains of Distinct Self-Construals: The Role of Interdependence in Regulatory Focus," *Journal of Personality and Social Psychology*, 78 (6), 1122-34.

- Lee, Angela Y. and E. Tory Higgins (2009), "The Persuasive Power of Regulatory Fit," in *Social Psychology of Consumer Behavior*, Michaela Wänke (Ed.), New York, NY US: Psychology Press, 319-33.
- Lee, Angela Y., Punam Anand Keller and Brian Sternthal (2010), "Value from Regulatory Construal Fit: The Persuasive Impact of Fit between Consumer Goals and Message Concreteness," *Journal of Consumer Research*, 36 (5), 735-47.
- Maddox, W. Todd, Grant C. Baldwin, and Arthur B. Markman (2006), "A test of the regulatory fit hypothesis in perceptual classification learning," *Memory and Cognition*, 34 (7), 1377-97.
- Malaviya, Prashant and Brian Sternthal (2009), "Parity Product Features Can Enhance or Dilute Brand Evaluation: The Influence of Goal Orientation and Presentation Format," *Journal of Consumer Research*, 36 (1), 112-21.
- Markus, Hazel (1977), "Self-Schemata and Processing Information About the Self," *Journal of Personality and Social Psychology*, 35 (2), 63-78.
- Mogilner, Cassie, Jennifer L. Aaker, and Ginger L. Pennington (2008), "Time Will Tell: The Distant Appeal of Promotion and Imminent Appeal of Prevention," *Journal of Consumer Research*, 34 (5), 670-81.
- Monga, Ashwani and Rui (Juliet) Zhu (2005), "Buyers versus Sellers: How They Differ in Their Responses to Framed Outcomes," *Journal of Consumer Psychology*, 15 (4), 325-33.
- Mourali, Mehdi and Frank Pons (2009), "Regulatory fit from attribute-based versus alternative-based processing in decision making," *Journal of Consumer Psychology*, 19 (4), 643-51.
- Mussweiler, Thomas and Roland Neumann (2000), "Sources of Mental Contamination: Comparing the Effects of Self-Generated Versus Externally Provided Primes," *Journal of Experimental Social Psychology*, 36 (2), 194-206.
- Otto, A. Ross, Arthur B. Markman, Todd M. Gureckis, and Bradley C. Love (2005), "Regulatory Fit and Systematic Exploration in a Dynamic Decision-Making Environment," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 36 (3), 797-804.
- Palmatier, Robert, Rajiv Dant, Dhruv Grewal and Kenneth Evans (2006), "A Meta-Analysis on the Antecedents and Consequences of Relationship Marketing Mediators: Insight into Key Moderators," *Journal of Marketing*, 70 (October), 136-53.
- Petty, Richard E., Cacioppo, John T., & Schumann, David (1983), "Central and peripheral routes to advertising effectiveness: The moderating role of involvement," *Journal of Consumer Research*, 10 (September), 135-146.
- Pham, Michel Tuan and Tamar Avnet (2004), "Ideals and Oughts and the Reliance on Affect Versus Substance in Persuasion," *Journal of Consumer Research*, 30 (4), 503-18.
- ____ (2009), "Contingent Reliance on the Affect Heuristic as a Function of Regulatory Focus," *Organizational Behavior and Human Decision Processes*, 108 (2), 267-78.
- Pham, Michel Tuan and Hannah H. Chang (2010), "Regulatory Focus, Regulatory Fit, and the Search and Consideration of Choice Alternatives," *Journal of Consumer Research*, 37 (4), 626-40.
- Pham, Michel Tuan and Higgins, E. Tory (2005), "Promotion and Prevention in Consumer Decision Making: The State of the Art and Theoretical Propositions," in *Inside Consumption: Consumer Motives, Goals, and Desires*, S. Ratneshwar and David Glen Mick (eds.), London, UK: Routledge, 8-43.

- Pieters, Rik G. M. and Tammo H. A. Bijmolt (1997), "Consumer Memory for Television Advertising: A Field Study of Duration, Serial Position, and Competition Effects," *Journal of Consumer Research*, 23 (4), 362-72.
- Rao, Akshay R. and Kent B. Monroe (1989), "The Effect of Price, Brand Name, and Store Name on Buyers' Perceptions of Product Quality: An Integrative Review," *Journal of Marketing Research*, 26 (3), 351-57.
- Roese, Neal J., Taekyun Hur, and Ginger L. Pennington (1999), "Counterfactual Thinking and Regulatory Focus: Implications for Action Versus Inaction and Sufficiency Versus Necessity," *Journal of Personality and Social Psychology*, 77 (6), 1109-20.
- Rosenthal, Robert (1991), *Meta-Analytic Procedures for Social Research*, 2nd ed. London: Sage.
- Rosenthal, Robert, Ralph L. Rosnow, and Donald B. Rubin (2000), *Contrasts and Effect Sizes in Behavioral Research: A Correlational Approach*, New York, NY US: Cambridge University Press.
- Sengupta, Jaideep and Rongrong Zhou (2007), "Understanding Impulsive Eaters' Choice Behaviors: The Motivational Influences of Regulatory Focus," *Journal of Marketing Research*, 44 (2), 297-308.
- Tversky, Amos and Daniel Kahneman (1974), "Judgment under Uncertainty: Heuristics and Biases," *Science*, 185 (4157), 1124-31.
- Van-Dijk, Dina and Avraham N. Kluger (2004), "Feedback sign effect on motivation: is it moderated by regulatory focus?," *Applied Psychology: An International Review*, 53 (1), 113-35.
- Van Overschelde, James P. (2002), "The influence of word frequency on recency effects in directed free recall," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 28(4), 611-15.
- Vaughn, Leigh Ann, Sarah J. Hesse, Zhivka Petkova, and Lindsay Trudeau (2009), "'This Story Is Right on': The Impact of Regulatory Fit on Narrative Engagement and Persuasion," *European Journal of Social Psychology*, 39 (3), 447-56.
- Vaughn, Leigh Ann, Jill Malik, Sandra Schwartz, Zhivka Petkova, and Lindsay Trudeau (2006), "Regulatory Fit as Input for Stop Rules," *Journal of Personality and Social Psychology*, 91 (4), 601-11.
- Wan, Echo Wen, Jiewen Hong, and Brian Sternthal (2009), "The Effect of Regulatory Orientation and Decision Strategy on Brand Judgments," *Journal of Consumer Research*, 35 (6), 1026-38.
- Wang, Jing and Angela Y. Lee (2006), "The Role of Regulatory Focus In Preference Construction," *Journal of Marketing Research*, 43 (1), 28-38.
- Werth, Lioba and Jens Foerster (2007), "How Regulatory Focus Influences Consumer Behavior," *European Journal of Social Psychology*, 37 (1), 33-51.
- Zeithaml, Valarie A., A. Parasuraman, and Leonard L. Berry (1985), "Problems and Strategies in Services Marketing," *Journal of Marketing*, 49 (Spring), 33-46.
- Zhang, Yinlong and Vikas Mittal (2007), "The Attractiveness of Enriched and Impoverished Options: Culture, Self-Construal, and Regulatory Focus," *Personality and Social Psychology Bulletin*, 33 (4), 588-98.
- Zhao, Guangzhi and Cornelia Pechmann (2007), "The Impact of Regulatory Focus on Adolescents' Response to Antismoking Advertising," *Journal of Marketing Research*, 44 (4), 671-87.

Zhou, Rongrong and Michel Tuan Pham (2004), "Promotion and Prevention across Mental Accounts: When Financial Products Dictate Consumers' Investment Goals," *Journal of Consumer Research*, 31 (1), 125-35.

Zhu, Rui (Juliet) and Joan Meyers-Levy (2007), "Exploring the Cognitive Mechanism that Underlies Regulatory Focus," *Journal of Consumer Research*, 34 (1), 89-96.

TABLE 1
DEPENDENT VARIABLE CODING

Construct	Definition	Example (citation)	Other Representative Paper(s)
<i>Evaluation</i>	Refers to dependent measures that assess participants' attitudes or reactions to a product, a message or other stimuli.	Evaluating a brand on four bipolar scales (e.g., bad/good) (Wan et al. 2009, studies 1, 4)	<i>Briley and Aaker 2006; Lee, Aaker and Gardner 2000, studies 1-4</i>
<i>Behavioral Intention</i>	Refers to dependent measures that assess participants' willingness to engage in a behavior.	Indicating intention to eat more fruits and vegetables (Cesario et al. 2004, study 1)	<i>Pham and Chang 2010, study 4; Van-Dijk and Kluger 2004; Zhou and Pham 2004</i>
<i>Behavior</i>	Refers to dependent measures that capture participants' actual behavior.	Completing anagrams accurately (Forster et al. 1998, studies 1-2)	<i>Brebels, De Cremer and Sedikides 2008; Lalwani, Shrum and Chiu 2009</i>
<i>Processing</i>	Refers to dependent measures that assess the extent to which participants processed information as measured by variables such as recall, elaboration, thought listing.	Recalling information from scenarios previously presented (Aaker and Lee 2001, study 2)	<i>Roese, Hur and Pennington 1999, study 1</i>
<i>Fluency</i>	Refers to dependent measures that assess participants' ease of processing as measured by variables such as reaction time or subjective assessments of difficulty/ease of processing.	Indicating ease of processing, difficulty of understanding (Lee et al. 2010, study 4)	<i>Forster, Higgins, and Bianco 2003, Study 1; Murali and Pons 2009, studies 2-3</i>
<i>Feeling Right</i>	Refers to dependent measures that explicitly assess the extent to which participants feel right as a function of regulatory fit.	Indicating feeling while they were reviewing information (Lee et al. 2010, study 4)	<i>Malaviya and Sternthal 2009, study 2</i>
<i>Feeling Confident</i>	Refers to dependent measures that explicitly assess the extent to which participants feel confident as a function of regulatory fit.	Evaluating confidence in ratings (Cesario et al. 2004, study 3)	<i>Wan et al. 2009, studies 1 & 4</i>
<i>Affect</i>	Refers to dependent measures that capture participants' affective states including mood, emotion, and feeling.	Indicating how pleasant an arm position is (Forster et al. 1998, studies 1-2)	<i>Wan et al. 2009, studies 1-4</i>

Note: Complete coding manual available from the authors

TABLE 2
MODERATOR VARIABLE CODING

Construct	Definition	Example (citation)	Other Representative Paper(s)
Components of Regulatory Fit			
<i>Source of Focus</i>			
Chronic	Regulatory focus is captured via standardized measures.	Completing the regulatory focus questionnaire (RFQ; Hong and Lee 2008, study 3)	<i>Selves: Avnet and Higgins 2006; Self-Guide: Evans and Petty 2003; Lockwood: Zhao and Pechmann 2007</i>
Momentary	Regulatory focus is manipulated via self or situation-generated prime.	<i>(See definitions and exemplars below)</i>	
<i>Momentary Focus Prime</i>			
Self-Generated	Momentary focus is manipulated via a prime which is of or related to the self in which participants are asked to reflect on their own lives or imagine themselves in a situation as part of	Imagining oneself winning a championship or losing a championship (Aaker and Lee 2001, studies 2-4)	<i>Idson, Liberman, and Higgins 2004, studies 1-2; Lee et al. 2010, study 1, 2; Mourali and Pons 2009, studies 1-3</i>
Situation-Generated	Momentary focus is manipulated via exposure to stimuli or a context (not of or related to the self).	Complete a maze task framed as a mouse seeking cheese or escaping an owl (Zhang and Mittal, 2007)	<i>Forster et al. 2003, study 3; Jain, Agrawal, and Maheswaran 2006, study 1; Zhou and Pham 2004, study 4</i>
<i>Fit Type</i>			
Process	The manipulation of regulatory fit prompts "people to engage in decision making processes that are either consistent or inconsistent with their regulatory orientation" (Aaker and Lee 2006, pp.	Listing eagerness or vigilance related action plans (Freitas and Higgins 2002, study 2)	<i>Avnet and Higgins 2006; Forster and Higgins 2005, study 2; Zhu and Meyers-Levy 2007, study 2</i>
Outcome	The manipulation of regulatory fit "leverages the outcome to which people with distinct regulatory goals are sensitive" (Aaker and Lee 2006, p. 16)	Considering the benefits or risk to be avoided from drinking grape juice (Lee and Aaker, 2004, studies 1, 4, and 5)	<i>Evans and Petty 2003; Jain et al. 2006, studies 1-3; Werth and Foerster 2007</i>
<i>Fit Scope</i>			
Incidental	Regulatory fit is "induced prior to, and completely independent of, the persuasive message itself" (Cesario, Higgins and Scholer 2008, p. 450).	Rating photos of dogs after a fit manipulation developing action plans to achieve prevention and promotion goals (Higgins et al. 2003, study 4)	<i>Hong and Lee 2008, study 1, 2, & 4; Koenig et al. 2009, study 1</i>
Integral	Regulatory "fit is induced by manipulating something integral to or within the actual persuasion situation" (Cesario, Higgins and Scholer 2008, p. 450).	Rating attitudes towards a brand following an advertisement for that brand in which the tagline in the ad created fit (Lee and Aaker, 2004, studies 1, 2, and 4a)	<i>Jain, Agrawal and Maheswaran 2006, studies 1-3; Mourali and Pons 2009, study 1-3</i>
<i>Fit Match</i>			
Decision Style	Regulatory fit manipulates the cognitive strategy people are encouraged to use.	Making product choices using either attribute- or alternative-based strategies (Mourali and Pons 2009, study 1-3)	<i>Pham and Chang 2010, study 1; Zhou and Pham 2004, study 4</i>
Eagerness/Vigilance Strategies	Regulatory fit manipulates participant use of approach/avoidance strategies which may be induced through exposure to positive and negative outcomes.	Evaluating strategies presented in eagerness or vigilance terms (Freitas and Higgins 2002, study 1)	<i>Evans and Petty 2003; Forster et al. 1998, studies 1-2</i>
Framing	Regulatory fit manipulation utilizes the relative sensitivities to gain (non-gain) vs. loss (non-loss) information.	Imagining a gain (promotion-fit) or a non-loss (prevention-fit) scenario (Monga and Zhu 2005, study 1)	<i>Cesario et al. 2004, studies 1-2; Grimm et al. 2008, studies 1-2</i>
Hedonic vs. Utilitarian	Regulatory fit is manipulated through presentation of information that appeals to desires or utility (e.g., affective or cognitive information).	Using a feeling based strategy or a reason-based strategy to evaluate a product (Avnet and Higgins 2006)	<i>Chernev 2004, studies 1-3; Pham and Avnet 2004, study 1</i>
Mode of Presentation	Regulatory fit manipulates the way in which attribute information is presented.	Willingness to pay for a meal selected from a hierarchical- or list-format menu (Pham and Chang 2010, study 4)	<i>Wan et al. 2009, studies 3-4; Zhang and Mittal 2007, study 3</i>
Self-View	Regulatory fit is captured through differences in self-views as measured by a standardized scale, identified by country-of-origin, or manipulated by a situational prime.	Being Chinese (prevention) or European-American (promotion) (Lalwani et al. 2009, study 1)	<i>Aaker and Lee 2001, study 1</i>

TABLE 2 (CONTINUED)
MODERATOR VARIABLE CODING

Construct	Definition	Example (cite)	Other Representative Paper(s)
Boundary Conditions			
<i>Involvement</i>			
Low	Refers to studies in which participant motivation was low due to explicit manipulation, individual difference measurement, absence of financial incentives, or absence of personal relevance.	Scoring low on need for cognition scale (Evans and Petty 2003)	<i>Wan et al. 2009, studies 1-4; Wang and Lee 2006, studies 1-2</i>
High	Refers to studies in which participant motivation was high due to explicit manipulation, individual difference measurement, financial incentives, or personal relevance.	Scoring high on need for cognition scale (Evans and Petty 2003)	<i>Otto et al. 2010; Wang and Lee 2006, studies 1-2</i>
<i>Category</i>			
Service	Refers to studies in which a dependent variable measured participant assessment of a service.	Indicating one's intention to be tested for hepatitis (Hong and Lee 2008, study 4).	<i>Higgins et al. 2001, study 1a</i>
Product	Refers to studies in which a dependent variable measured participant assessment of a product.	Evaluating a fictional breakfast product called Fast-Break (Evans and Petty 2003)	<i>Kirmani and Zhu 2007, study 1; Lee and Aaker 2004, studies 1, 4; Murali and Pons 2009, study 2</i>
Methodological Moderators			
<i>Domain</i>			
Health Marketing	Refers to studies in which the persuasive message discusses a product or a service related to the health of the participant or people in general.	Evaluating an anti-smoking advertisement (Zhao and Pechmann 2007, studies 1-2)	<i>Keller 2006, study 2</i>
Non-Health Marketing	Refers to studies in which the persuasive message discusses a product or a service (unrelated to the health of the participant or people in general).	Indicating attitudes toward a product message about an automobile (Mogilner et al. 2008, study 1)	<i>Murali and Pons 2009, study 2</i>
Psychology/Other	Refers to studies in which there was no persuasive message for either a product or a service.	Classifying a line based on length and orientation (Maddox, Baldwin, and Markman 2006, study 1-3)	<i>Roese et al. 1999, study 1</i>
<i>Participant</i>			
Student	Refers to studies in which participant are listed as undergraduates or students aged 22 or younger.	Approaching undergraduate students in a university library to read a scenario (Monga and Zhu 2005, study 1)	<i>Forster et al. 1998; Hong and Lee 2008 studies 1 & 4</i>
Non-Student	Refers to studies in which any other participant type was used.	Intercepting mall visitors to study product evaluations (Herzenstein, Posavac and Brakus 2007, study 1)	<i>Hong and Lee 2008, study 3; Holler et al. 2008, studies 1 & 2</i>
<i>Incentive</i>			
Course Credit	Refers to studies in which individuals received course credit in return for their participation.	Being remunerated with course credit (Werth and Foerster 2007, studies 1-2)	<i>Cesario et al. 2004; Idson et al. 2004</i>
Money	Refers to studies in which individuals received money or a gift in return for their participation.	Being paid \$5 to participate in a study (Mogilner, Aaker and Pennington 2008, studies 1-3)	<i>Grimm et al. 2008, study 2; Murali and Pons 2009, study 1</i>

TABLE 3
REGULATORY FIT EFFECTS

Dependent Variable	Neff	Total N	Simple Average <i>r</i>	Sample-Weighted Reliability-Adjusted Average <i>r</i>	Confidence Interval		Z	<i>p</i>	File Drawer N	Q Statistic
					LCI	HCI				
Evaluation	137	11,195	0.22	0.24	0.21	0.27	15.83	0.001	29,679	328.17
Behavior Intention	55	5,494	0.22	0.21	0.18	0.25	11.96	0.001	5,217	96.01
Behavior	57	4,252	0.28	0.28	0.25	0.32	13.70	0.001	6,915	98.77
Processing	48	3,096	0.25	0.25	0.20	0.31	8.76	0.001	3,254	113.64
Fluency	15	1,093	0.30	0.31	0.23	0.39	7.07	0.001	567	29.36
Feeling Right	3	350	0.28	0.27	0.17	0.37	5.21	0.001	27	0.10
Feeling Confident	6	634	0.20	0.23	0.09	0.36	3.14	0.002	66	15.61
Affect	54	5,494	0.09	0.10	0.06	0.14	4.35	0.001	997	135.59

TABLE 4
COMPONENTS OF REGULATORY FIT

		Evaluation						Behavioral Intention					
		<i>r</i>	<i>N_{eff}</i>	Z	CI Low	CI High	Q	<i>r</i>	<i>N_{eff}</i>	Z	CI Low	CI High	Q
Source of Focus	Momentary	0.23	121	23.02***	0.21	0.25	0.38	0.20	45	13.94***	0.17	0.22	1.17
	Chronic	0.22	16	8.73***	0.17	0.26		0.23	10	7.40***	0.17	0.29	
Momentary Focus	Self-Generated	0.23	70	17.04***	0.21	0.26	0.00	0.20	35	12.62***	0.17	0.23	0.32
	Situation-Generated	0.23	51	15.48***	0.21	0.26		0.18	10	5.94***	0.12	0.24	
Fit Type	Process	0.22	76	16.60***	0.20	0.25	1.55	0.23	22	10.68***	0.19	0.27	1.60
	Outcome	0.25	46	17.00***	0.22	0.27		0.19	25	11.17***	0.16	0.23	
Fit Scope	Incidental	0.22	47	12.11***	0.18	0.25	0.95	0.15	15	5.64***	0.10	0.21	4.37*
	Integral	0.24	90	21.45***	0.22	0.26		0.22	40	14.85***	0.19	0.24	
Fit Match	Decision Style	0.29	18	12.42***	0.25	0.33	16.82**	0.18	13	7.25***	0.13	0.23	8.08
	Eager/Vigil Strategies	0.22	44	13.15***	0.19	0.25		0.18	21	8.01***	0.13	0.22	
	Framing	0.24	25	12.25***	0.20	0.27		0.24	13	9.69***	0.19	0.28	
	Hedonic v Utilitarian	0.24	12	7.54***	0.18	0.30		0.33	2	3.33***	0.14	0.50	
	Mode of Presentation	0.27	6	7.14***	0.20	0.34		0.23	4	4.88***	0.14	0.31	
Self-View	0.16	32	6.15***	0.11	0.21	0.32	2	3.25***	0.13	0.49			

* $p < .05$, ** $p < .01$, *** $p < .001$

		Behavior						Processing					
		<i>r</i>	<i>N_{eff}</i>	Z	CI Low	CI High	Q	<i>r</i>	<i>N_{eff}</i>	Z	CI Low	CI High	Q
Source of Focus	Momentary	0.24	43	14.22***	0.21	0.27	15.26***	0.24	40	12.14***	0.20	0.28	0.05
	Chronic	0.37	14	11.98***	0.32	0.43		0.25	8	5.81***	0.17	0.33	
Momentary Focus	Self-Generated	0.21	21	8.69***	0.16	0.25	5.22*	0.21	29	8.97***	0.17	0.26	5.52*
	Situation-Generated	0.28	22	11.49***	0.23	0.32		0.31	11	8.51***	0.24	0.37	
Fit Type	Process	0.27	34	13.81***	0.24	0.31	0.07	0.24	15	8.96***	0.19	0.29	0.03
	Outcome	0.26	15	8.60***	0.21	0.32		0.25	29	9.40***	0.20	0.30	
Fit Scope	Incidental	0.27	30	13.39***	0.23	0.31	0.00	0.25	27	8.97***	0.20	0.30	0.14
	Integral	0.27	27	12.29***	0.23	0.31		0.24	21	10.04***	0.19	0.28	
Fit Match	Decision Style	0.30	14	9.25***	0.24	0.36	18.75**	0.29	16	8.19***	0.23	0.36	19.11**
	Eager/Vigil Strategies	0.27	11	7.02***	0.19	0.34		0.18	19	6.40***	0.13	0.23	
	Framing	0.29	16	9.36***	0.24	0.35		0.36	6	7.52***	0.27	0.44	
	Hedonic v Utilitarian	0.25	6	6.62***	0.18	0.32		0.44	1	3.92***	0.23	0.61	
	Mode of Presentation	0.18	5	5.21***	0.11	0.24		0.20	3	3.39***	0.09	0.32	
Self-View	0.42	5	7.47***	0.323	0.517	0.19	3	2.94**	0.06	0.31			

* $p < .05$, ** $p < .01$, *** $p < .001$

Note: *r* refers to size of the effect; Z tests that the size of the effect is different than 0; Q tests whether the size of the effect is different among the levels of the moderator

TABLE 5
BOUNDARY CONDITIONS AND METHODOLOGICAL FACTORS

Level	Evaluation						Behavioral Intention						
	<i>r</i>	<i>N_{eff}</i>	<i>Z</i>	CI Low	CI High	<i>Q</i>	<i>r</i>	<i>N_{eff}</i>	<i>Z</i>	CI Low	CI High	<i>Q</i>	
Involvement High	0.08	18	2.18*	0.01	0.14	22.08***	0.03	3	0.74	-0.06	0.12	14.90***	
Low	0.24	119	24.97***	0.23	0.26		0.22	52	16.20***	0.19	0.24		
Category	Service	0.18	15	7.46***	0.13	0.23	6.07**	0.18	17	8.58***	0.14	0.21	1.74
	Product	0.24	89	20.90***	0.22	0.27		0.21	29	10.90***	0.17	0.25	
Domain	Health Marketing	0.19	50	13.15***	0.17	0.22	16.03***	0.22	19	10.24***	0.18	0.26	3.70
	Non-Health Marketing	0.27	60	19.00***	0.25	0.30		0.18	28	9.75***	0.15	0.22	
	Psychology/Other	0.22	27	9.39***	0.18	0.27		0.25	8	7.19***	0.18	0.31	
Participant	Student	0.24	125	23.56***	0.22	0.26	4.06*	0.19	44	13.13***	0.16	0.22	2.75
	Non-Student	0.18	10	6.96***	0.13	0.23		0.26	7	6.67***	0.18	0.33	
Incentive	Course Credit	0.23	44	12.59***	0.19	0.26	0.10	0.08	5	1.42	-0.03	0.18	3.39
	Money	0.22	38	12.08***	0.19	0.25		0.19	14	6.55***	0.13	0.25	

* $p < .05$, ** $p < .01$, *** $p < .001$

Level	Behavior						Processing						
	<i>r</i>	<i>N_{eff}</i>	<i>Z</i>	CI Low	CI High	<i>Q</i>	<i>r</i>	<i>N_{eff}</i>	<i>Z</i>	CI Low	CI High	<i>Q</i>	
Involvement High	0.28	19	9.29***	0.22	0.33	0.01	0.05	10	1.16	-0.04	0.15	20.08***	
Low	0.27	37	15.44***	0.24	0.30		0.28	38	14.14***	0.24	0.31		
Category	Service	0.31	6	6.97***	0.23	0.39	2.75	0.06	2	0.72	-0.11	0.23	3.88*
	Product	0.23	21	10.52***	0.19	0.27		0.24	20	9.66***	0.19	0.29	
Domain	Health Marketing	0.39	8	8.63	0.31	0.47	16.44***	0.26	7	6.65***	0.18	0.33	1.71
	Non-Health Marketing	0.21	13	8.32	0.16	0.25		0.21	15	6.82***	0.15	0.27	
	Psychology/Other	0.29	36	14.25	0.25	0.33		0.26	26	9.59***	0.21	0.31	
Participant	Student	0.26	52	16.67***	0.23	0.29	4.88	0.25	45	13.42***	0.21	0.28	5.06*
	Non-Student	0.38	3	7.00***	0.28	0.47		0.07	2	0.80	-0.09	0.22	
Incentive	Course Credit	0.35	5	6.36***	0.25	0.45	1.47	0.24	24	9.27***	0.19	0.29	0.00
	Money	0.28	30	12.63***	0.24	0.32		0.24	10	6.46***	0.17	0.31	

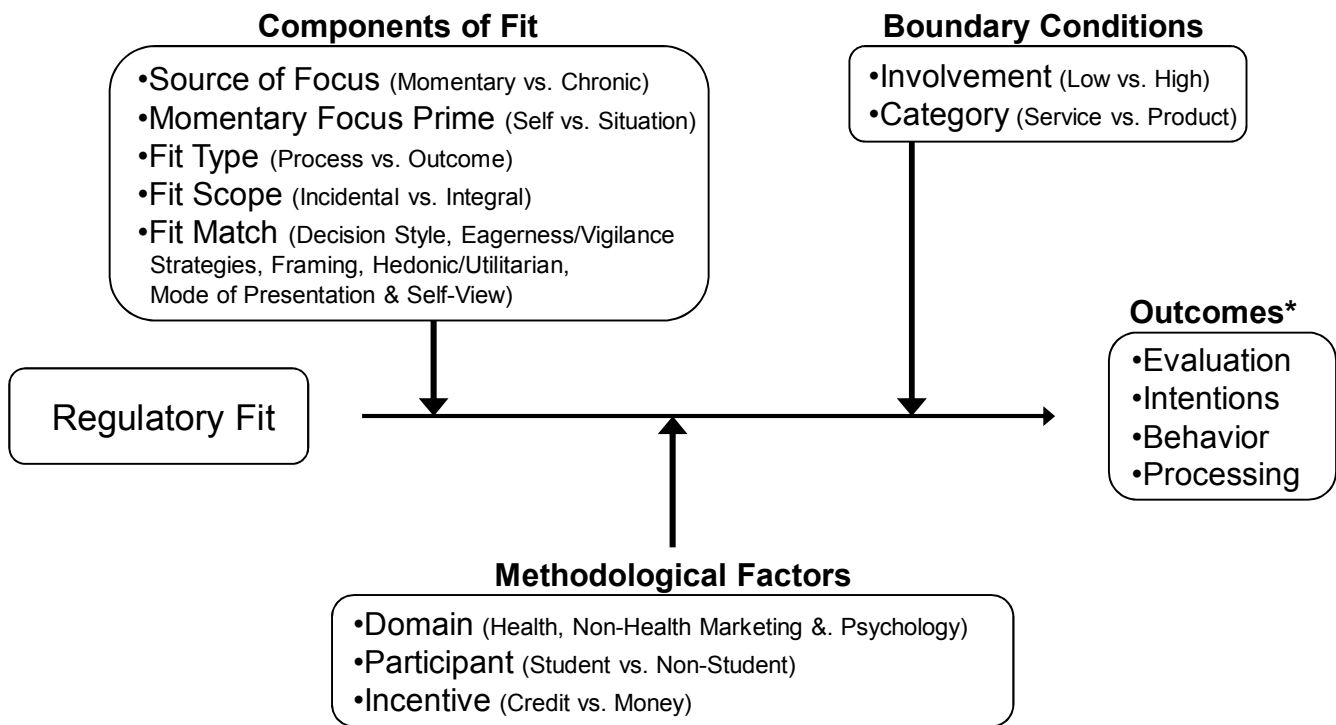
* $p < .05$, ** $p < .01$, *** $p < .001$

Note: *r* refers to size of the effect; *Z* tests that the size of the effect is different than 0; *Q* tests whether the size of the effect is differs among the levels of the moderator

TABLE 6
SUMMARY OF KEY FINDINGS, IMPLICATIONS AND AVENUES FOR FUTURE RESEARCH

Key Findings	Implications & Avenues for Future Research
RF Main Effects	
RF had significant main effects on evaluation, behavior intention, behavior, processing, fluency, feeling right, and feeling confident.	RF is an important driver of consumer response. The effect size is of moderate magnitude. The number of studies examining the effects of RF on feeling right and feeling confident and engagement are fairly small. Thus, additional research needs to examine the main effects of RF on these variables and assess their individual and joint mediating effects.
Surprisingly RF had a small but significant effect on affect.	The role of RF on affect needs to be explored. Pham (2008) and Pham and Avnet (2004, 2008) suggest a number of important avenues to be explored.
Components of Fit: Source of Focus, Momentary Focus, Fit Type, Fit Scope, and Fit Match	
Source of Focus: Chronic vs. Momentary Focus	
Chronic focus (relative to momentary) resulted in a larger effect size for behavior.	Although both forms of focus have significant effects on evaluation, behavioral intention, behavior, and processing, there are differences in the size of the effect for chronic focus as compared to momentary focus for behavior. Further research is needed to explore why this difference is observed.
Momentary Focus: Situation vs. Self-Generated	
Situation-generated (relative to self-generated) primes resulted in a larger effect size for behavior and processing.	Although both forms of momentary focus primes have significant effects on evaluation, behavioral intention, behavior, and processing, there are differences in the size of the effect for situation-generated as compared to self-generated for behavior and processing. Further research is needed to identify the mechanism underlying this difference.
Fit Type: Process vs. Outcome	
We did not find significant differences for RF process versus outcome-based fit	RF effects appear to be robust across the two manipulations of regulatory fit.
Fit Scope: Integral vs. Incidental	
Decision tasks integral (relative to incidental) to the manipulation of regulatory fit resulted in a larger effect size for behavior intention.	Decisions integral and incidental to regulatory fit are comparably strong predictors of evaluation, behavior and processing. For behavioral intention, integral tasks show significantly stronger effects. Additional research is needed to assess the individual effects at each level as well as the difference between the two types of decision.
Fit Match: Decision Style, Eager/Vigilant Strategies etc.	
The results overall find the most consistently strong results for the framing and hedonic versus utilitarian fit manipulations. Further, we find the most robust effects for behavior when self-view is used and for processing when hedonic versus utilitarian is used.	The RF effect is robust across the methods of fit match. However, the size of the RF effect varies as a function of the way in which fit is created. Further research is needed to explore the interaction of method of fit match and the dependent variable.
Boundary Conditions: Involvement and Category	
RF effects on evaluation, behavior intention, and processing were stronger when the situation was less involving. A similar pattern of results was found for products for evaluation and processing (generally viewed as less involving than services).	The results are in line with the work of Wang and Lee (2006). That is, RF effects are stronger when individuals are in low-involving situations. These results are consistent with findings in other consumer behavior domains that individuals in low-involved situations increase their dependence on heuristics (e.g., Petty, Cacioppo and Schumann 1983).
Methodological Factors: Domain, Participant Type and Incentive	
Stronger RF effects were found for students (on evaluation and processing), and when the study domain was health (on behavior) and non-health (on evaluation).	Students are likely to be familiar with participating in research studies and as a consequence be less involved than adults who might find the study to be a novel situation. The area of health appears to be a fruitful domain for predicting behavior. Thus, RF theory appears to have strong public policy implications.

FIGURE 1
REGULATORY FIT FRAMEWORK FOR META-ANALYSIS



* The main effects of regulatory fit are also examined on fluency, feeling right, feeling confident and affect.