Regulatory Fit and Persuasion: Basic Principles and Remaining Questions

Joseph Cesario,[1]* E. Tory Higgins,[2] and Abigail A. Scholer[2]
[1] *Michigan State University*
[2] *Columbia University*

Abstract

How can researchers and practitioners use regulatory fit theory to increase the effectiveness of their attempts to change attitudes and behavior? In this article, we extract from the literature a set of basic processes by which fit can influence persuasion and describe different methods for inducing fit. Regulatory fit can influence persuasion by: (i) making message recipients *feel right* during message reception; (ii) increasing recipients' strength of engagement with the message, which contributes to processing fluency; and (iii) influencing elaboration likelihood. *Integral* methods induce fit within the persuasion situation (as with framing of message arguments, source delivery style, and decision means), whereas *incidental* methods induce fit independent of the persuasion situation. We discuss common difficulties researchers may encounter with these techniques, and clarify existing confusions about regulatory fit and regulatory focus theory. Throughout, we highlight important questions that must be addressed to attain a complete understanding of regulatory fit.

A sizeable literature has amassed recently on the role of regulatory fit in attitude formation and change. Rather than provide a complete summary of existing research findings, the goal of this article is to extract some basic principles from the methodologies that have been used to date, and to provide an introduction for researchers and practitioners who wish to use regulatory fit to increase message effectiveness. As is the case when any new theory attracts interest, there is some misinterpretation and confusion about regulatory fit. We will attempt to clarify a few of the most important of these issues, and describe some difficulties researchers may encounter in using regulatory fit.

What Is Regulatory Fit?

To start with the most basic question, what is regulatory fit? Regulatory fit theory (Higgins, 2000, 2005) is a goal–pursuit theory that places special emphasis on the relation between the *motivational orientation* of the actor

and the *manner in which that actor pursues the goal* (e.g., the strategic means used by that actor). Other relations, of course, are possible (such as the relation between the actor's motivational orientation and the nature of the desired end state being pursued), and we will discuss some of these later. However, a central idea of regulatory fit is that an actor's orientation often leads to preferences for certain types of goal–pursuit means (in particular, for those means that will *sustain* her orientation), and that the actor's experience of goal pursuit differs depending on whether or not these preferred means are used. When the actor uses the preferred means, she experiences *regulatory fit*, which can have two effects: (i) the actor *feels right* about what she is doing in the goal-pursuit activity; and (ii) there is increased strength of engagement in the goal-pursuit activity. Importantly, this feeling right effect is independent of pleasant mood in the classic hedonic sense (see Avnet & Higgins, 2003, 2006a, b; Camacho, Higgins, & Luger, 2003; Cesario, Grant, & Higgins, 2004; Cesario & Higgins, forthcoming; Higgins, 2000, 2005, 2006; Higgins, Idson, Freitas, Spiegel, & Molden, 2003), and, like other subjective experiences, can be misattributed (e.g. Higgins, Idson, et al., 2003).

Regulatory fit is a broad theory in that it applies to any motivational orientation with a preferred manner of goal pursuit, such as regulatory mode or need for closure (see, for example, Avnet & Higgins, 2003). However, since most of the research to date has used regulatory focus theory as a vehicle for testing regulatory fit predictions, we will discuss this theory in some detail. Regulatory focus theory (Higgins, 1997, 1998) describes two fundamental self-regulatory systems, promotion focus and prevention focus, and the goal–pursuit strategic means preferred by each – eagerness and vigilance, respectively. A person in a promotion focus represents goals as hopes or aspirations and is concerned with nurturance, accomplishment, and advancement. A person in a prevention focus represents goals as duties or obligations and is concerned with safety and security. Since both nurturance and security are necessary for survival, each focus is present in all people to some degree. However, there are chronic individual differences in the predominance of each, and, in addition, situational features are capable of momentarily activating one or the other.

Regulatory focus theory also proposes that there are different preferred goal-pursuit strategies for each system. In other words, different strategic means *fit* a promotion focus versus a prevention focus (Cesario et al., 2004; Crowe & Higgins, 1997; Higgins, Idson, et al., 2003; Liberman, Molden, Idson, & Higgins, 2001; Shah, Higgins, & Friedman, 1998). When an actor in a promotion focus pursues goals, he will prefer to use *eager strategic means* of goal attainment, whereas an actor in a prevention focus will prefer to use *vigilant strategic means*. Eager means are means that ensure the presence of positive outcomes (look for means of advancement) and ensure against the absence of positive outcomes (do not close off possible advancements). Vigilant means are means that ensure the absence of

negative outcomes (be careful) and ensure against the presence of negative outcomes (avoid mistakes). Said in another way, eager means are concerned with ensuring matches to the desired end state, whereas vigilant means are concerned with ensuring against mismatches to the desired end state. Of importance, the nature of this preference stems from the ability of one or the other means to *sustain* (versus disrupt) a given orientation. (The importance of this point will become apparent below, when regulatory fit is distinguished from other approaches such as message matching.)

To take an example, imagine the second and third authors both have the goal of being the number one Elvis impersonator on the North American circuit. Although each author may have an identical goal, they may have different orientations to it and therefore different preferred means of attaining it. Supposing the second author is predominantly pro-motion focus, he will represent this goal as a hope or aspiration and will prefer to pursue it by using eager means, such as by attending extra practice sessions with his mentor, making his family offer endless suggestions after watching yet another rehearsal, and generally not missing out on any chances to compete. Supposing the third author is predominantly prevention focus, she will represent this same goal as a duty or obligation and will prefer to use vigilant means to pursue it, such as by giving detailed attention to the design of her Elvis costume, being careful not to schedule any conflicting activities for performance days, and generally avoiding any mistakes that would stop her from reaching the goal. Upon achieving the goal (or not), either author will experience the pleasure of success (or, the pain of failure). Independent of this outcome, however, if the preferred means of goal pursuit are used, they will also experience *feeling right* about what they are doing and will engage more strongly in the goal-pursuit activity.

How is regulatory fit theory relevant for researchers and practitioners wishing to motivate healthy behavior change, convince consumers to purchase their product, or increase message effectiveness more generally? In other words, how can regulatory fit be utilized to increase persuasion? There are distinct advantages of regulatory fit for persuasion − its *flexibility* of method and *wide applicability* to a variety of social influence situations. A short survey of existing topics to which fit has been applied reveals its applicability: social policy issues (Cesario et al., 2004); health behaviors such as fruit and vegetable consumption (Cesario et al.; Spiegel, Grant-Pillow, & Higgins, 2004), exercise, and cholesterol screening (Wlaschin, Rothman, Bartels, & Bachnick, 2006); advertisements for grape juice and sunscreen (Lee & Aaker, 2004); consumer purchasing behavior, such as payment for book lights and mugs (Avnet & Higgins, 2003; Higgins, Idson, et al., 2003); political election speeches (Cesario, 2006); driving skills tests among young car drivers (Haddad & Delhomme, 2006); senior comprehensive examinations for undergraduates (Koenig, Cesario, Molden, Kosloff, & Higgins, forthcoming); and increasing volunteerism (Koenig et al., forth-coming). A number of the possible ways in which fit can be implemented

are discussed in turn, beginning with the first applications of regulatory fit through framing of persuasive messages. Throughout, we will attempt to extract and elaborate on some basic principles describing the influence of fit on persuasion.

Creating Regulatory Fit by Framing Message Arguments

Cesario et al. (2004) and Lee and Aaker (2004) provided the first demonstrations that regulatory fit theory could be used to increase the effectiveness of a persuasive appeal. The basic methodology was to frame the arguments of a persuasive message in ways that fit or did not fit the orientation of the message recipient, and to show that those messages that fit were more persuasive. The reasoning behind this application of regulatory fit to persuasion was the following. The topic of the message (i.e. the position advocated) would create a desired end state or anticipatory goal for the message recipient, with this goal being represented in terms of the recipient's promotion or prevention orientation. The framing of the message arguments would then sustain or disrupt the recipient's orientation, thereby creating regulatory fit or nonfit, respectively. Using regulatory focus as a way to test fit predictions, these researchers found that eager-framed arguments had a greater persuasive impact for promotion-focused than prevention-focused message recipients, whereas the reverse was true for vigilant-framed arguments.

As an example, Cesario et al. (2004) created a persuasive message advocating a new after-school program for grade-school children. In the eager condition, the arguments in support of this program were framed in terms of ensuring the presence of positive outcomes − for instance, 'there will be a greater number of students who succeed in their post-academic life choices.' In the vigilant condition, the arguments were framed in terms of ensuring against negative outcomes − 'there will be a lower number of students who fail in their post-academic life choices.' The eager framing resulted in more message-congruent attitudes for those recipients chronically high in promotion focus, and the vigilant framing resulted in more message-congruent attitudes for those chronically high in prevention focus. Note that in both cases, *the information content of the message is the same*, but the framings differ in terms of whether they sustain or disrupt a recipient's regulatory orientation.

Instead of measuring recipients' chronic orientation, as in the above study, another fit induction technique involves manipulating an orientation by framing the message topic itself in terms of promotion or prevention concerns. Lee and Aaker (2004), for example, presented participants with an advertisement for a grape juice drink, which emphasized either promotion-focus concerns (the energy enhancing properties of the drink) or prevention concerns (the disease-preventing properties of the drink). The purpose of this manipulation was to induce the corresponding focus

in the message recipient (see also Cesario et al., 2004, Study 1). The tagline for the advertisement was then framed in terms of eagerness or vigilance, and a regulatory fit effect on participants' attitude toward the drink was found. Lee and Aaker used this technique across multiple studies and observed consistent effects in each. Importantly, by priming regulatory focus, Lee and Aaker demonstrated that one does not need to know the idiosyncratic characteristics of recipients. Given that both promotion focus and prevention focus can be primed in all people, it is possible to begin a persuasive appeal by priming one or the other focus and then delivering a message framed in a way that fits.

How does regulatory fit framing of message arguments result in more effective messages? In other words, what process principles can be extracted from this research? One general process mechanism or principle of regulatory fit is that fit *makes recipients feel right about their experience during message reception*. How exactly this general mechanism would influence persuasion, however, depends on various conditions, not the least of which is the answer to the following, vitally important, question: '*What exactly is a message recipient feeling right about?*' It could be that a message recipient is feeling right about the message itself. Alternatively, it could be that a message recipient is feeling right about his or her reaction to the message (positive *or* negative). We will return to this latter possibility in the section on incidental sources of regulatory fit. For now, we note the importance of this question as these two alternatives predict opposite effects of regulatory fit under certain conditions – for example, when message quality is low. We suggest that the method of inducing fit may provide a clue to answering this question, a point we elaborate upon later.

With respect to the first possibility, there is evidence that message recipients can feel right about the message itself. When recipients feel right about the message, they can use this feeling as information to make inferences related to the message (see Schwarz, 1990; Schwarz & Clore, 1983, 1988), such as inferring their attitude toward the topic, their confidence in their attitude, and so on. When asking oneself, 'What do I think about this after-school program?' or 'How do I feel about this advertised product?' feeling right can serve as one piece of information to answer these questions – 'I feel right about it.' Cesario and Higgins (forthcoming) found: (i) that participants in fit conditions reported more positive attitudes toward the message topic and more intention to behave in line with its recommendation; and (ii) this effect was mediated by participants' 'feeling right' reports (for additional evidence of individuals with regulatory fit 'feeling right', see Appelt, Zou, Arora, & Higgins, forthcoming). Furthermore, these effects did not depend on the valence of participants' thoughts in response to the message, meaning they were feeling right about the message and not about their reaction to it.

A second general process mechanism or principle of regulatory fit that could influence persuasion is that fit *increases strength of engagement in the*

message processing activity. Increased strength of engagement could make the message feel easier to process, an effect first demonstrated by Lee and Aaker (2004). Across several studies, these researchers found that regulatory fit led to greater reported ease of processing the message (fluency), which also mediated the observed fit effect on attitudes. Cesario and Higgins (forthcoming) found this effect as well, although using a different method of inducing fit (described below).

In discussing different possible mechanisms for the regulatory fit effect, we should emphasize that we are not suggesting that these are competing mechanisms. Although feeling right and engagement strength are distinct mechanisms, they need not be incompatible. Indeed, they could support one another. Feeling right about what one is doing while processing a message could lead a message recipient to engage more strongly in message processing and increase processing fluency, and vice versa.

Creating Regulatory Fit by Framing a Source's Nonverbal Behavior

Recently, Cesario and Higgins (forthcoming; Cesario, 2006) provided evidence for a new regulatory fit persuasion technique in which a source's physical style of delivering the message is varied in a way that fits or does not fit with the recipient's orientation. These researchers demonstrated that the source of a message could strategically vary his nonverbal behaviors to deliver an *identical* message in ways that did or did not fit for different recipients. Again using regulatory focus as a vehicle for testing fit predictions, it was shown that a source could use his gestures, speech rate, and body position and movement to convey a sense of eagerness or a sense of vigilance during message delivery. For instance, by making broad, opening movements that project outward from the body, leaning forward, and speaking more quickly, the source conveyed eagerness while delivering the message, and by making precision gestures, 'pushing' motions that represent slowing down, and speaking more slowly, the source conveyed vigilance (see Cesario and Higgins, for visual examples).

Cesario and Higgins (forthcoming) found that the same verbal message was more persuasive when there was regulatory fit – an eager nonverbal style delivered to promotion-focused recipients (versus prevention-focused) and a vigilant nonverbal style delivered to prevention-focused recipients (*vers*us promotion-focused). Crucially, evidence for the mediation of this fit effect by participants' reported *feeling right* experience was also found. As in previous research (e.g. Avnet & Higgins, 2003; Camacho et al., 2003; Cesario et al., 2004), this effect was independent of recipients' hedonic experience during message processing (i.e. feeling pleasant or unpleasant). Additionally, the fact that fit did not interact with the valence of participants' thoughts about the message indicates that in this study they were feeling right about the message, and not their reaction to it.

Here the applicability of regulatory fit is even more widespread than with message framing. First, the use of messages that are verbally identical in every respect is possible with this technique. This is important given that people's lay beliefs about being manipulated usually concern message content differences. The classic notion of a dishonest politician, for instance, is a person who says different things to different audiences, 'flip-flopping' based on what a particular audience wants to hear. People are often aware of and wary of such manipulations. In contrast, the use of nonverbal behaviors can be more subtle and is generally not the focus of people's concerns about manipulation and deceit.

The potential for using nonverbal behavior as a technique for creating regulatory fit is significant given the frequency of persuasion situations that involve a visually present message source. Debates, political speeches, television or live advertisements, appeals from clergy, health practitioner recommendations, and group or familial social influence situations all share an important feature – the person being persuaded not only encounters the content of the source's appeal but sees and hears the source as well.

Given that content is not the only influencing factor in any persuasive attempt, the role of a source's nonverbal behavior should be a significant concern of persuasion researchers. It is interesting in this regard that most persuasion research in recent decades could not examine this issue because of the overwhelming use of written messages. Future research is needed to understand more fully this technique, and also to examine how such behavioral manipulations interact with other known variables of importance, such as source expertise.

Creating Regulatory Fit through Incidental Sources of Fit

The research described thus far has used what could be termed *integral* regulatory fit manipulations, in that fit is induced by manipulating something integral to or within the actual persuasion situation (see Koenig et al., forthcoming). There are other ways of inducing fit, however, including *incidental sources* of regulatory fit. Here, regulatory fit can be induced prior to, and completely independent of, the persuasive message itself. Then, the feeling right and engagement strength induced by fit can impact subsequent message processing. The potential applicability of this technique for persuasion is the broadest of all, since the actual persuasion situation can be completely identical in all conditions. (This distinction between integral and incidental sources is similar to that of relevant versus incidental emotions in persuasion; see Bodenhausen, Mussweiler, Gabriel, & Moreno, 2001).

Thus far, this incidental source technique has been accomplished through the use of a measure developed by Freitas and Higgins (2002), in which participants list a goal they wish to accomplish and some means they could use to attain the goal. Specifically, participants list either a

hope/aspiration they have (promotion-focus induction) or a *duty/obligation* they have (prevention-focus induction), and then list either *strategies to make sure everything goes right* (eager strategies) or *strategies to make sure nothing goes wrong* (vigilant strategies). Crossing these two manipulations produces two fit conditions (promotion/eager; prevention/vigilant) and two nonfit conditions (promotion/vigilant; prevention/eager). After this task, the persuasive message is then introduced, with the feeling right and high engagement strength from fit (or feeling wrong and low engagement strength from nonfit) carrying over to this new situation.

This technique has been used to produce regulatory fit effects successfully in a range of studies and situations (e.g. Cesario et al., 2004; Freitas & Higgins, 2002; Higgins, Idson, et al., 2003; Koenig et al., forthcoming). Cesario et al., for example, used this technique in two studies, and found that regulatory fit effects on persuasion were the same as when fit was induced in an integral manner. Cesario et al. also tested for the role of the feeling right transfer mechanism through a classic reattribution paradigm. Specifically, they found that when participants were made aware of the correct source of their feeling right prior to message reception (by attributing it to the premessage 'goal–strategy' induction task), the regulatory fit effect on persuasion was eliminated. Therefore, it appears that this technique influences attitudes, at least in part, by making participants feel right about the message.

As mentioned earlier, feeling right about the message itself is not the only way fit could influence attitudes – one could also *feel right about one's reaction to the message*, which could be a positive reaction *or* a negative reaction. If one is feeling right about a negative reaction, then regulatory fit will *decrease*, rather than increase, message effectiveness and persuasion. For instance, if the message quality is poor and causes a negative reaction in recipients, they would feel right about their negative reaction, thereby having the same resistance effect as being confident about a negative reaction (Petty, Briñol, & Tormala, 2003).

Cesario et al. (2004) found evidence for this process as well. In one study, regulatory fit or nonfit was induced prior to receiving the persuasive message, which was an identical neutral message framing for everyone. Participants were also explicitly told to pay special attention to *either* the quality of the message (i.e. its persuasiveness) *or* their attitude toward the topic. *When attention was directed to message quality*, fit was found to interact with the valence of participants' thoughts in response to the message, such that fit increased persuasion for those participants having a positive reaction to the message but *decreased* persuasion for those participants having a negative reaction to the message. When participants' attention was directed to the topic rather than to the message quality, no interaction was observed – that is, they felt right about the message topic itself, not their reaction to it. Evidence for feeling right about one's reaction to the message, at least in persuasion research, has so far been found only when

one is explicitly attending to the quality of the message, which need not always be the case during a persuasive attempt.

Recently, Koenig and colleagues (forthcoming) have proposed a third process principle by which incidental sources of fit can affect persuasion – through its effect on *the likelihood of elaborative processing*. This proposal has its foundation in research showing that experiential states can provide information about the conditions of the environment and whether or not more attention should be devoted to what one is doing (Clore et al., 2001; Schwarz, 2006; Schwarz & Clore, 2007). Generally speaking, negative experiential states signal to a person that there is a problem and more thought is needed to correct it – and 'feeling wrong' from regulatory non-fit could function as such a negative experiential state. In contrast, positive experiential states signal that things are proceeding in a nonproblematic way, allowing a person to 'coast along' in the current state – and 'feeling right' from regulatory fit could function as such a positive experiential state (see Vaughn, Malik, Schwartz, Petkova, & Trudeau, 2006; Vaughn, O'Rourke, et al., 2006).

Across four studies, Koenig and colleagues (forthcoming) replicate findings with classic persuasion variables which show that message recipients in whom regulatory fit was induced prior to message reception – the incidental fit induction – show attitude change effects that are associated with low elaboration processing. Conversely, those recipients in whom regulatory non-fit was induced show signs of high elaboration processing. For example, argument quantity (an easy to process component) had an impact on the attitudes of fit participants, whereas argument quality (a difficult to process component) did not; the reverse was true for the attitudes of those participants in regulatory non-fit.

This is not to say that regulatory fit will necessarily produce low elaboration processing. There are certain conditions where regulatory fit might produce *high* elaboration processing – namely, with *integral inductions* of fit that increase strength of engagement during the activity of processing the message. For example, in the nonverbal delivery-style research of Cesario and Higgins (forthcoming), a thought–listing measure revealed that participants in conditions of regulatory fit produced more thoughts that were related to the central merits of the message. This parallels other regulatory fit findings where fit was induced integrally. Lee and Aaker (2004) found that participants generated more supportive reasons for a product under fit conditions. Bianco, Higgins, and Klem (2003) induced fit or non–fit by combining tasks for which participants had a fun or serious orientation with instructions to engage in the task in a fun or serious manner. In a memory study, they found that conditions of regulatory fit led to better recall for the central events of a documentary film. What all this suggests is that the method of fit induction may be an important factor in determining the direction of influence on elaboration likelihood.

Creating Regulatory Fit from How a Position Is Reached

One intriguing but unexplored possibility for creating regulatory fit would be to affect recipients' perceptions of *how* the advocated position in a persuasive message was reached. It may be possible, for example, to frame the method by which different message sources arrived at their position in a way that fits or does not fit with the recipient's orientation. For instance, suppose a school board has decided to institute a controversial new curriculum policy and is holding a public meeting to explain its decision. With the content of the arguments and the advocated position being held constant, the description of how board members came to their position could be framed to suggest either that they eagerly considered every possible option (e.g. being sure not to miss any opportunities for attaining the goal of a strong curriculum) or that they vigilantly considered each of the best options (e.g. carefully evaluating each to ensure that they did not make a suboptimal choice). In each case, the content of their decision and the goal of a strong curriculum would be identical, but the specific process associated with each decision method would fit either a promotion focus or a prevention focus, respectively.

An analogous method might involve framing how the message recipient himself arrives at his attitude, a form of 'self-persuasion'. This could take two forms. First, the means by which the message recipient encounters each persuasive argument could be framed in ways that do or do not fit his orientation. In the case of regulatory focus and eager versus vigilant means, a message recipient might be given a set of 20 arguments of varying quality and be told either to select the 10 best arguments or to eliminate the 10 worst arguments, which, while leaving each recipient with the same 10 arguments, would be a decision method that fits with either a promotion focus or a prevention focus, respectively. Second, the process by which a message recipient considers the costs and benefits of an advocated position could be framed in ways that do or do not fit his orientation. Again using the case of regulatory focus, a recipient might be asked to consider all the ways that an advocated position would ensure positive outcomes (a fit with promotion) versus ensure against negative outcomes (a fit with prevention).

There is, in fact, some evidence for such a self-persuasion process, but without persuasive messages per se being involved. In studies by Higgins, Idson, et al. (2003), Columbia undergraduates were given the opportunity to choose between a nice Columbia coffee mug and an inexpensive pen (selected so that all participants would choose the mug). The way in which the choice was made, however, was varied, with some participants being told to 'think about what you would gain by choosing' the mug or the pen (eager means) and others being told to 'think about what you would lose by not choosing' the mug or the pen (vigilant means). After choosing the mug, participants were given compensation for participating

and told they could offer some amount *of their own money* to purchase the mug. Results showed that under conditions of regulatory fit (promotion/eager; prevention/vigilant), participants offered *almost 70% more* for the mug.

Like all fit techniques, the framing of decision means is not restricted to the orientations of regulatory focus. Avnet and Higgins (2003), for instance, used a similar paradigm as Higgins, Idson and colleagues (2003), but used the regulatory mode orientations of locomotion (concerned with movement from state to state) and assessment (concerned with making comparisons; see Higgins, Kruglanski, & Pierro, 2003). These researchers found that participants were willing to pay over 40% more of their own money for a book light under conditions of fit versus nonfit.

In addition to being applicable to typical persuasion situations, an interesting application of these methods might be found in the area of prejudice reduction. In particular, having high-prejudice people think about their out-group beliefs in ways that do *not* fit their orientation, such as asking prevention-focus individuals to think about the general characteristics of out-group members and then list those characteristics in an eager manner ('Accuracy is not important; the more the better'), could cause them to feel *wrong* from regulatory non-fit. Given that feeling right or wrong is closely related to confidence judgments, this feeling wrong from non-fit may undermine the certainty with which they hold their beliefs – despite the fact that they have just been given the opportunity to make their own beliefs accessible and salient. This technique holds particular promise because the experience of feeling wrong would likely be experienced as self-persuasion, not other persuasion, since it is the perceiver's own thoughts that are causing him to feel wrong. This may be an especially effective technique with a topic like prejudice, for which people might be more concerned with influence attempts from perceived outsiders.

Understanding Regulatory Fit: Confusions and Caveats

As researchers and practitioners increasingly use regulatory fit in their research (especially with regulatory focus), it is important to be aware of potential difficulties when using fit techniques. One major difficulty is distinguishing between regulatory fit and other possible relations between elements in the persuasion situation. Regulatory fit, for instance, needs to be distinguished from other kinds of matching techniques, including regulatory relevance (Cesario, 2006; Higgins, 2002).

A long history exists in persuasion research of tailoring some aspect of the persuasion situation to the characteristics of the recipient. Such *message matching and source matching* has included, for example, matching the stated function of the attitude object to the psychological function served by the recipient's attitude (Clary et al., 1998); matching emotional versus cognitive content to recipients with affective versus cognitive bases of attitudes

(Fabrigar & Petty, 1999); and matching source expertise versus source attractiveness to recipients' self-monitoring status (DeBono & Harnish, 1988). Importantly, regulatory focus can also serve as a recipient characteristic in message matching (or *regulatory relevance*, see Avnet & Higgins, 2006a, b; Higgins, 2002), as when a car advertisement describes luxury features versus safety features, which matches for promotion versus prevention recipients, respectively (Safer, 1998; see Higgins, 2002). In all these cases, something about the message is being related to the recipient in an effort to increase attitude change.

Since regulatory fit is also concerned with relations between elements in the persuasion situation and the recipient, is regulatory fit 'merely' another example of these kinds of message matching? And if not, how might regulatory fit be distinguished from these other kinds of message matching? We believe that regulatory fit can be meaningfully distinguished on a conceptual level by asking, 'What is the function or purpose of the match?'

Historically, the emphasis in earlier matching research has been mostly on *need satisfaction from desired outcomes*. This is most explicit with research on message matching of attitude functions, which assumes attitudes 'serve particular needs that people have' (Petty, Wheeler, & Bizer, 2000, 133) and that describing the function of the attitude object in a way that fulfills this psychological need will motivate the recipient. This idea of need state fulfillment has appeared in other types of matching studies as well. For example, DeBono and Harnish (1988) suggest source matching effects can occur when 'the interpersonal needs of individuals can be satisfied by a message's source' (p. 542). Thus, something about the persuasion situation (message or source) satisfies a recipient's needs, and the motivational impact of a matched message comes from the outcomes associated with accepting the advocated position (e.g., that volunteerism permits expressing important personal values). Even with source matching, the motivational relevance still comes from outcomes – 'what happens if I accept the advocated position of this expert source?' (This does not always predict increased persuasion, (Evans & Petty, 2003), just that the impact or effect of matching is derived from its need fulfillment properties.)

For regulatory fit, in contrast, the motivational impact is at the *strategic* rather than the outcome level. It is the manner or *process* of accepting or considering the message and its advocated position, rather than the outcome of doing so, that sustains the recipient's current self-regulatory orientation. It is this sustaining of the orientation that has effects on attitude change. Regulatory fit does not satisfy a need state of the recipient. Eagerness does not satisfy a need of individuals who are currently in a promotion–focus state; rather, it is a preferred manner of goal pursuit because it sustains that orientation.

It should be noted that distinguishing in this way regulatory fit from other kinds of matching raises questions about what kind of matching was

at play in some prior studies – was it regulatory fit, need satisfaction, or both? From the methodology alone, one cannot always be sure of whether a manipulation was satisfying a need or sustaining a current orientation. Given this, some prior studies described in terms of matching from need satisfaction may actually involve regulatory fit, and vice versa. Interestingly, some previous matching studies have been less clear about whether the matching involved need state fulfillment, and it is precisely these studies that could be reinterpreted in terms of regulatory fit. For example, Fabrigar and Petty (1999) matched the affective versus cognitive framing of a persuasive message to recipients whose attitudes had an affective or cognitive basis. Fabrigar and Petty do not describe exactly why their matched messages should influence persuasion, only that the 'nature of the appeal matches or mismatches' (p. 364). Although their matching manipulation could have affected need satisfaction, it is also possible that it created regulatory fit because the framing might have sustained recipients' orientations to think of the attitude object in a particular way.

Distinguishing regulatory fit from other kinds of matching in this way also has implications for future research. It suggests the need to develop clear methods for determining whether a manipulation is sustaining a current self-regulatory orientation or satisfying a need. It allows for the possibility that both could be independently manipulated, and, if so, then the relation between the two could be examined. Are their effects additive, interactive? It also leads to the question of whether there are persuasion domains where regulatory fit or need satisfaction is the more effective technique.

As for the use of regulatory focus in testing fit predictions, a common confusion is to equate promotion focus with approaching desired end states and prevention focus with avoiding undesired end states. Promotion and prevention focus refer *both* to approaching desired end states *and* to avoiding undesired end states; that is, both promotion-focus and prevention-focused individuals are concerned with approaching success and avoiding failure, but *they represent these states differently*. For promotion-focus individuals, success is the presence of positives and failure is the absence of positives, and there is motivation toward both these states. Conversely, for prevention-focus individuals, success is the absence of negatives and failure is the presence of negatives, and again, there is motivation toward both.

This is made clear when one considers the case of promotion- and prevention-focus parenting (see Higgins, Idson, et al., 2003; Higgins & Silberman, 1998). Nurturing parenting styles involve introducing both the pleasures associated with the presence of positives (kissing your child) and the pains associated with the absence of positives (withdrawing love). Security parenting also involves both the pleasures of the absence of negatives (safeguarding cabinets) and the pains of the presence of negatives (spanking a child). The case of the Elvis impersonator example described

earlier also illustrates this distinction. The fact that an identical goal can be pursued by promotion- and prevention-focus actors makes it clear that these systems are not synonymous with approach and avoidance. In this case, *both* promotion and prevention actors are approaching the desired end state of top Elvis Impersonator accolades. (For a fuller discussion of how approach and avoidance motivations need to be distinguished, see Scholer & Higgins, forthcoming).

A failure to maintain the above distinction between regulatory focus and general approach versus avoidance systems can create difficulties when attempting to use regulatory fit as a method of persuasion. Consider, for example, the difficulty of getting the manipulations of eagerness and vigilance correct, as when framing message arguments. A potential confusion is to equate eagerness with approaching positives and vigilance with avoiding negatives. But eagerness relates to *both* gains (which are positive) and nongains (which are negative), and vigilance relates to *both* nonlosses (which are positive) and losses (which are negative).

Not maintaining the above distinctions can cause researchers to design manipulations incorrectly. In our experience, one common way this manifests is that researchers label phrases such as 'do not miss out on this chance!' as vigilance, because it resembles avoidance (not having a negative thing happen) and vigilance is being equated with avoidance. However, when one considers that eagerness is about pursuing all possible opportunities for advancement (e.g. avoiding errors of omission), it becomes clear that trying not to miss out on an opportunity is really an eager, not a vigilant, strategy.

Even without these general difficulties, some features of regulatory fit theory necessitate a good deal of precision when utilizing it for the purpose of persuasion. First, given that there are multiple ways in which fit can influence attitude formation and change, researchers and practitioners must be attuned to how the conditions of the persuasion situation will lead to one or another of these processes, as each process can produce opposite effects on message effectiveness depending on other conditions. Since it is not yet known how these conditions combine, caution should be exercised until further research clarifies these questions. For example, it is not clear how incidental and integral sources differ with respect to feeling right about the message versus feeling right about one's reaction to the message, yet this is a key variable insofar as it could lead to opposite regulatory fit effects on message effectiveness when the reaction to the message is negative, such as under low-argument-quality conditions.

Recent work by Scholer, Stroessner, and Higgins (forthcoming; see Scholer & Higgins, forthcoming) further complicates matters by distinguishing between strategies and tactics. Their work concerns another common confusion – to assume that eagerness is always equivalent to a risky bias and that vigilance is always equivalent to a conservative bias. The research by Scholer et al. demonstrates the importance of distinguishing

between strategies (e.g. vigilance) and the tactics that can serve a particular strategy in a given context. While prior work (Crowe & Higgins, 1997; Friedman & Förster, 2001) has shown that prevention-focused individuals exhibit a conservative bias toward neutral stimuli in a signal detection paradigm, Scholer et al. (forthcoming) found that when the stimuli are negative, this tactical preference shifts. The vigilant strategic orientation of prevention-focused individuals is best served by a conservative tactic when all is well ('playing it safe') but is best served by a risky tactic when the input is negative (because the costs of overlooking a negative signal are too great). Simply put, when things are bad or potentially bad, it is necessary to do whatever it takes, whatever is necessary (including high-risk behaviors), to get back to safety and security. As predicted, Scholer et al. found that when the stimuli were negative, individuals in a prevention focus exhibited a strong risky bias.

More broadly, it's important to note that in hierarchies of self-regulation, there are multiple ways in which lower levels in the hierarchy (tactics, behaviors) can serve higher levels (strategies, goals) (e.g. Carver & Scheier, 1998; Scholer & Higgins, forthcoming). In particular, a given strategy ('be eager!') may be served by any number of different tactics or behaviors ('speak quickly!' 'gesture broadly!'). Strategies simply reflect the *general plans or means* for goal pursuit. Tactics reflect the *specific* ways in which one might, for example, eagerly approach matches to a desired end state or vigilantly avoid mismatches *within a particular context*. Tactics are the context-specific instantiation of a strategy (Cantor & Kihlstrom, 1987; Higgins, 1997; Scholer & Higgins, forthcoming).

Future Directions and Applications

If the full potential of regulatory fit for persuasion is to be met, several issues require additional research attention. A few have already been described in some detail. A few more are worth mentioning briefly here. One issue is how regulatory fit combines with other persuasion techniques of known effectiveness. How fit interacts, or does not interact, with techniques such as message matching, regulatory relevance, injunctive and descriptive norms (Cialdini, 2003), and so on is an important practical issue. There is also a need to test the role of regulatory fit within existing models of persuasion, such as the elaboration likelihood model (Petty & Wegener, 1999), heuristic-systematic model (Chen & Chaiken, 1999), and the unimodel (Kruglanski & Thompson, 1999). For example, some of the principles outlined earlier correspond to the elaboration likelihood model's 'multiple roles' postulate. According to elaboration likelihood model, any persuasion variable may influence attitude change through a variety of processes, such as serving as persuasive arguments, serving as peripheral cues, or affecting the extent and direction of elaboration. These roles are similar to some of the principles discussed above. For example,

using feelings as information may be using feeling right as a heuristic cue ('If I feel right about it, it must be right'), and feeling right about one's reaction to the message may be an instance of self-validation (see Tormala, Briñol, & Petty, 2007). It would be useful in the future to clarify the extent of such similarities and determine where unique effects occur.

Another issue is that almost all research on integral sources of fit to date has relied on measuring chronic regulatory orientations, as opposed to directly priming them. Additionally, identifying groups that have a naturally occurring predominance of one orientation or the other, and testing whether fit effects can be produced with these different groups, should be given attention as well. For instance, there is evidence of cross-cultural differences in regulatory focus predominance and in regulatory mode predominance (see Higgins, Pierro, & Kruglanski, forthcoming), but cross-cultural studies on regulatory fit and persuasion have yet to be conducted. Furthermore, how a message topic can prime an orientation, and how this priming interacts with chronic focus, is a critically important issue.

With respect to future applications of regulatory fit and persuasion, perhaps the most promising path is in applying regulatory fit and regulatory focus to health-behavioral change (see also Aaker & Lee, 2006). This could take several forms, the most obvious of which would be to apply regulatory fit message framing to health messages, either those designed to change behavior or decision aids used to help patients make satisfactory decisions. The applicability is clear given that most current health messages attempt to motivate behavioral change by using either 'gain' framing (actually, describing the *benefits of adherence*: 'if you stop smoking you'll live ten years longer') or 'loss' framing (actually, the *costs of non-adherence*: 'if you don't stop, you'll die ten years sooner'). According to regulatory fit, these different framing should be more or less effective depending on the regulatory focus of the recipient (whether that focus is a chronic personality attribute or is primed by the message itself). In fact, Spiegel and colleagues (2004) provided participants with a promotion-focus or prevention-focus message about the importance of eating fruits and vegetables, and then had them consider the benefits of adherence or costs of nonadherence to the message recommendation; participants in fit conditions consumed about 20% more fruits and vegetables over the week following message exposure. Furthermore, regulatory fit theory suggests more fine-grained messages can be crafted by considering the full gain/ nongain and nonloss/loss framing combinations. Understanding how the health topic itself primes a given focus, and how this interacts with a recipient's chronic focus, could prove fruitful.

Another, perhaps less obvious, future application concerns the use of regulatory focus and regulatory fit to help people pass successfully through the stages of behavioral change, a possibility currently being pursued by the first author in collaboration with Alexander J. Rothman. Recent

research (e.g. Brodscholl, Kober, & Higgins, 2007) has shown that promotion–focus individuals are more concerned with attainment of a positive state, whereas prevention–focus individuals are more concerned with maintenance of an acceptable state. These differences map well onto the initiation and maintenance stages of change as suggested by Rothman and colleagues (e.g., Rothman, Baldwin, & Hertel, 2004). Thus, it may be that inducing a given focus at each stage, and framing messages in ways consistent with that focus, could increase people's strength of engagement with their behavioral change task. How framing of messages at each stage can capitalize on these behavioral tendencies, and potential interactions with chronic orientation, is another exciting avenue for future research.

Why do we consider health-behavioral change to be one of the more promising avenues for regulatory fit research (see also Aaker & Lee, 2006)? As discussed earlier, one general mechanism or principle of regulatory fit effects is *increased strength of engagement* with the goal pursuit process. Having a high strength of engagement, or motivational strength, is associated with commitment to the goal in the face of obstacles (Freitas, Liberman, & Higgins, 2002; Higgins, 2006). For most health behavioral changes (e.g. smoking, dieting, exercise), difficulties in goal completion stem from temptations and negative outcome experiences. Any experiential state that can help people successfully manage these challenges could increase success. Initial research by Cesario et al. (2004) and Spiegel et al. (2004) has been encouraging, with regulatory fit shown to increase not only the intention to consume more fruits and vegetables, but actual fruit and vegetable consumption over a 7-day period following message reception. Such lasting effects from very brief message exposures are indicative of the importance of self-regulatory orientations, and speak to the potential of regulatory fit theory to make major contributions to efforts at behavioral and attitudinal change.

Short Biographies

Joseph Cesario is currently Assistant Professor of Psychology at Michigan State University. He received his PhD from Columbia University (2006), with E. Tory Higgins. He holds a BS (1999) in Psychology and a BA (2000) in Philosophy from Loyola University Chicago.

E. Tory Higgins is Stanley Schachter Professor of Psychology at Columbia University, and Professor of Management at Columbia Business School. He received his PhD from Columbia University (1973). He has won the Donald T. Campbell Award from the Society for Personality and Social Psychology (1996); the Thomas M. Ostrom Award for Social Cognition from the Person Memory Interest Group (1999); the William James Fellow Award from the Association for Psychological Science (2000); the Distinguished Scientific Contributions Award from the American Psychological Association (2000); the Columbia University Presidential Award for

Outstanding Teaching (2004); and the Distinguished Scientist Award from the Society for Experimental Social Psychology (2005).

Abigail Scholer is currently pursuing her doctoral degree at Columbia University, with E. Tory Higgins. She holds a BA in Psychology from Gettysburg College (2000). All three are interested in the motivation-cognition interface.

Endnote

★ Correspondence address: Psychology Building, Michigan State University, East Lansing, MI 48824, USA. Email: cesario@msu.edu.

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