There is nothing either good or bad but thinking makes it so: Informational support and cognitive appraisal of the work–family interface

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This paper examines whether cognitive appraisals regarding work–family role combination can be influenced by providing informational support. We conducted an experiment among female employees with young children working in a financial services organization (N = 149). Participants received information communicating either a scarcity or an expansion perspective on human energy, prior to completing a survey. In support of our predictions, results showed that employees appraised the task of combining their work and family roles more positively after exposure to an expansion rather than a scarcity message. This research offers new theoretical insights into the role of cognitive appraisal in work–family research and offers scope for designing intervention programs that help employees to view role-combining more positively.

It is typically assumed that juggling work and family responsibilities is difficult and stressful. However, according to the transactional model of stress (TMS; Lazarus & Folkman, 1984), no situation or event is stressful in and of itself – it is how we cognitively construe a particular situation that matters. In the words of Epictetus (50 A.D.–135 A.D.): ‘Men are disturbed not by things, but by the view which they take of them’ (Ellis, 1962, p. 54) or as Shakespeare put it ‘There is nothing either good or bad but thinking makes it so’ (Hamlet, 2, ii). Consistent with this idea, studies into the formation of cognitive appraisals suggest that the appraisals individuals make – and the levels of stress they experience as a result – can be influenced by information they receive from others (Haslam, 2004; Lazarus & Folkman, 1984; Tomaka, Blascovich, Kibler, & Ernst, 1997).

In the present research, we apply these insights to study the way in which individuals appraise the task of combining their work and family lives. We present a field experiment in which we examine whether employees’ cognitive appraisals
regarding their own combination of work and family roles are fixed, or whether they can in fact be changed by information provided by others. Below, we first discuss two different theoretical views on role combination that have been central in the literature. We then draw upon the TMS to study cognitive appraisals with regard to the combination of work and family roles and develop the prediction that information provided by others can affect the way that people appraise and experience role combination in their own lives.

**Scarcity theory and role expansion theory**

Work–family researchers have predominantly focused on the negative side of participation in multiple roles. Central to this work is the scarcity theory on human energy which assumes that personal resources of time, energy, and attention are *finite*. According to this view, devoting attention to one role necessarily implies that fewer resources can be invested in other roles (Greenhaus & Beutell, 1985; Marks, 1977). The fundamental assumption of this theory is that participation in one role tends to have a *negative impact* on other roles. Guided by this perspective, researchers have focused on the extent to which individuals experience conflict between their work and family roles. Work–family conflict is defined as: ‘A type of role conflict that arises when joint role pressures from work and family domains are experienced as incompatible in some respect, as a result of which participation in one role is made more difficult by virtue of participation in the other role’ (Greenhaus & Beutell, 1985, p. 77; Greenhaus & Powell, 2003).

Marks (1977), however, has argued that role combination should be viewed from a different perspective. His *role expansion theory* considers human energy to be abundant and expandable and he posits that participation in one role can also have *positive effects* on other role performances. This positive perspective has recently begun to receive substantial attention in the empirical literature. Within this perspective, scholars have examined the extent to which individuals experience their work and family roles as facilitating each other. The concept of work–family facilitation is defined as the individual’s experience that participation in one role makes it easier to fulfil the requirements of another role1 (Van Steenbergen, Ellemers, & Mooijaart, 2007).

Scarcity and expansion theories represent two very different ways of viewing the work–family interface: either as a ‘fixed pie’ where involvement in one role can only negatively affect another role, or as an ‘expanding pie’ which implies that the fulfilment of one role can positively affect other role performances. Yet, counter to the idea that the theoretical choice here is of an ‘either/or’ nature, empirical studies show that individuals who combine work and family can experience both conflict and facilitation, since conflict and facilitation represent separate constructs rather than being opposite ends of a single continuum (e.g. Frone, 2003; Grzywacz & Marks, 2000). Furthermore, it

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1 The terms facilitation, enhancement, positive spillover, and enrichment have been used interchangeably in the literature. However, they address slightly different aspects of the positive side of combining multiple roles (Carlson et al., 2006). Enhancement encompasses the acquisition of resources and experiences that are beneficial for individuals in facing life challenges (Sieber, 1974). Positive spillover indicates moods, values, or skills that transfer from one domain to another domain in ways that make the two domains more similar (Hanson et al., 2006; Edwards & Rothbard, 2000). Furthermore, enrichment refers to the individual’s judgment that participation in one role elicits positive consequences (performance and affect) for the other role (see Carlson et al., 2006, Van Steenbergen et al., 2007, for a more detailed overview). However, none of these constructs directly refers to the experience that participation in one role makes it easier to fulfill the requirements of another role, which is the essence of the facilitation construct we focus on in the present research.
is evident from the literature that it is important to try to reduce employees’ conflict
experiences as well as to stimulate their experiences of facilitation in role combination.
That is, conflict was found to relate to a range of detrimental outcomes, such as poor
mental and physical health (e.g. burnout, depressive complaints, a greater likelihood of
hypertension), whereas facilitation relates to favourable outcomes in these domains
(Allen, Herst, Bruck, & Sutton, 2000; Van Steenbergen, 2007; Van Steenbergen et al.,
2007; Witt & Carlson, 2006). To date, much research has been devoted to identifying
antecedents in the work and home environment that relate to conflict or facilitation
between work and family. Amongst other things, such research has revealed that
employees benefit from having formal organizational work–family benefits and
arrangements available to them as well as from receiving informal support from their
managers (e.g. Thomas & Ganster, 1995; Thompson & Pottras, 2005). However, in the
present research, we take a new approach. Building on the TMS, the current aim is to
examine whether it is possible to influence the way in which individuals cognitively
construe their task of combining work and family roles, which then should affect how
they experience combining these roles.

**The transactional model of stress**
The TMS conceptualizes the occurrence of stress as something that is psychologically
mediated. The central construct in the model is that of cognitive appraisal that
intervenes between the objective situation or encounter on the one hand and the
reaction of the individual on the other. According to Lazarus and Folkman (1984),
cognitive appraisal is the individual’s judgment of an event or situation, and its various
facets, in terms of its significance for well-being. In primary appraisal the individual
evaluates the degree to which the event or situation poses a treat to the self. In effect,
this concerns the question: ‘Is this stressful?’ If something is categorized as stressful
these appraisals can be characterized as ‘harm–loss’, ‘threat’, or ‘challenge’. Whereas
harm–loss appraisals refer to an assessment that injury has already taken place in the
past (e.g. harm to a friendship, loss of health), threat and challenge appraisals refer to
ongoing or upcoming situations. A threat appraisal is the individual’s assessment that
the situation involves the potential for harm or loss, whereas a challenge appraisal
refers to the situation being assessed as holding the potential for growth, mastery or
gain. In secondary appraisal the individual evaluates the resources available for dealing
with the situation. The basic question here is: ‘Can I cope?’ (Lazarus & Folkman, 1984).

Primary and secondary appraisals are interdependent and can reinforce each other.
For instance, the conviction that one is unable to cope with the situation can further
strengthen a threat appraisal (Folkman & Lazarus, 1985; Haslam, 2004; Tomaka,
Blascovich, Kelsey, & Leitten, 1993). Thus, the two components of appraisal together
determine whether an event or situation is regarded as significant for well-being, and if
so, whether it is primarily seen as threatening (involving possibility for harm or loss) or
as challenging (involving possibility of mastery or benefit; Folkman, Lazarus, Dunkel-
Schetter, DeLongis, & Gruen, 1986).

Appraising a situation as a threat or as a challenge makes a fundamental difference to
the individual’s immediate emotional response and thoughts about the situation, which
also emerges in the individual’s immediate physiological response. These responses
subsequently affect how well that person copes with and performs in the situation at hand
(Folkman & Lazarus, 1988; Folkman et al., 1986). Over time, people’s coping behaviours
determine whether they are able to adapt to or resolve stressful situations, which in-turn
affects longer-term outcomes, such as somatic health or illness, and well-being (Lazarus & Folkman, 1984). Making a threat appraisal elicits threat-related emotions and negative thoughts about the situation. A threatened individual will feel anxious, emotionally overwhelmed, and will keep worrying about the situation. By contrast, the individual who makes a challenge appraisal thinks positively about the situation, and feels excited and motivated to exert effort to address the situation at hand (Lazarus & Folkman, 1984).

The difference between these two types of responses can also be illustrated at the physiological level. A threat appraisal produces a disorganized mobilization of physiological resources (i.e. modest cardiac activation coupled with increased peripheral vascular resistance), whereas a challenge appraisal generates an efficient and organized mobilization of physiological resources (i.e. maximal cardiac activation accompanied by decreased vascular resistance, Tomaka & Blascovich, 1994; Tomaka et al., 1997). These different stress responses thus reflect the basic idea that the threatened individual is more likely to passively deal with the situation, whereas the challenged individual is ready to deal proactively with the situation (Lazarus & Folkman, 1984). Indeed, in performance situations (e.g. on athletic or arithmetic tasks), individuals who appraise the task as a challenge have been found to put greater effort in the task at hand and to actually outperform those who appraised the situation as a threat (Blascovich, Seery, Mugridge, Norris, & Weisbuch, 2004; Tomaka et al., 1993). Thus, how someone feels and thinks about, deals with, and performs in a certain situation depends on whether they cognitively construe that situation as a threat or a challenge (Haslam, O’Brien, Jetten, Vormedal, & Penna, 2005).

The transactional model of stress and the combination of work and family roles

The TMS not only provides a promising framework to study some of the mechanisms through which people’s cognitions about work–family role combination shape their experiences in combining these roles, but also points to concrete ways to intervene in this process. With regard to the demanding situation of combining work and family roles, we propose that how individuals cognitively construe this task for themselves makes a crucial difference. Specifically, we posit that primary and secondary appraisal components come into play, such that the individual attempts to establish: ‘Is this combination of roles stressful?’ and ‘Can I cope with this combination of roles?’ Here too, primary and secondary appraisal together determine whether the situation of role combination is primarily seen as a threat (representing the possibility for harm or loss) or as a challenge (holding the potential for mastery or benefit; Folkman et al., 1986). In accordance with the effects described in the TMS, we propose that the individual’s construal of role combination as a threat or as a challenge generates different emotions and thoughts, which affect how this person will deal with the demands that arise from the two domains of work and family. The individual who makes a threat appraisal feels anxious, emotionally overwhelmed, and worrisome. This person feels unable to draw on available resources, and is more likely to deal with the situation passively (Lazarus & Folkman, 1984). We argue that, over time, such a passive response to the joint work–family role pressures, and the associated feeling of being unable to adequately deploy available resources, makes it more likely that someone will experience conflict between their work and family roles. In contrast, appraising the task of combining work and family roles as a challenge implies that the person thinks positively about the demanding situation. This individual feels excited and motivated to deal with the situation and feels...
capable of drawing on available resources. This person also is more likely to deal with the situation proactively relative to conditions in which the situation is appraised as a threat (Lazarus & Folkman, 1984). Such a proactive approach of dealing with work and family role pressures in our view makes it more likely that the person will use available resources optimally, will identify new opportunities in the situation, and will make changes to the combination of roles that work to his or her advantage. Thus, over time, mastery of role combination is more likely to occur which makes it more likely that the person will experience a positive exchange between work and family roles as evidenced by the experience of facilitation.

In the present study, our main purpose is to examine whether it is possible to influence the way in which individuals appraise their combination of work and family roles. To the extent that such influence can indeed be exerted, this would provide scope to design intervention measures that stimulate employees to appraise and hence experience the combination of work and family roles as positive and challenging rather than negative and threatening.

**Can cognitive appraisals be influenced?**

Several studies in the stress literature have shown that it is possible to exert influence on people’s cognitive appraisals by providing a specific form of social support, namely informational support (also called appraisal support). In these studies, individuals received information from others that subsequently influenced their own appraisal of that situation. Informational support is thought to provide individuals with the opportunity to increase their understanding of an ongoing or upcoming situation, to compare their appraisals with those of others, and to assess the appropriateness of their emotional responses. In this way, new interpretations of a situation are acquired which affect the person’s cognitive appraisal of that situation (Aspinwall & Taylor, 1997; Cohen & Wills, 1985; Haslam et al., 2005).

In a classic demonstration of this point, Lazarus (1966) showed the effects of informational support in a study that involved watching a distressing film. In the experimental conditions, participants received information about the purpose of the upcoming film (telling them that it had been staged for educational purposes) which was designed to encourage them to develop appraisals that prevented them from experiencing stress. In line with predictions, these participants subsequently reported and showed fewer physiological signs of stress while watching the film than those in the control condition, where no additional information was provided. Furthermore, Holmes and Houston (1974) designed an elegant study in which participants were led to believe they faced a series of painful electric shocks. This study showed that appraisal manipulations that were provided in anticipation of the electric shocks (e.g. encouraging participants to appraise the shocks as an interesting physiological experience) reduced participants’ psychological as well as their physiological stress reactions. Further empirical evidence of such effects was provided by a study in which participants performed a mental arithmetic task after receiving one of two instructional sets. In the ‘threat set’, speed, accuracy of task performance, and potential evaluation were emphasized. However, in the ‘challenge set’, effort and doing one’s best were emphasized and participants were encouraged to think of the task as a challenge to be met and overcome. As predicted, participants’ threat and challenge appraisals, and their emotional as well as physiological stress response differed depending on instructional set (Tomaka et al., 1993, 1997).
The above studies demonstrate not only the importance of cognitive appraisal processes to the experience of stress but also show that these appraisals can be manipulated by providing information that bears upon people’s interpretation of the situation (Haslam, 2004; Tomaka et al., 1997). Recently, this idea also seems to have found its way in the literature on work demands. For example, Podsakoff, Lepine, and Lepine (2007) have called for an examination of the way in which managerial communication (e.g. relating to the way in which work goals are framed) can encourage employees to appraise work demands as a challenge rather than a hindrance (i.e. threat). However, to our knowledge, no previous study within the work-family literature has examined whether cognitive appraisals regarding role combination can be changed. Nevertheless, Grzywacz and Bass (2003) do identify this possibility in their recommendation that intervention programs should help employees better understand the personal benefits they and their families receive from role combination. In their view, increased awareness of the beneficial side of role combination might serve as a cognitive resource that individuals can draw upon in this task. Thus, they alert scholars and practitioners to the interesting possibility that individuals can be helped, through instruction, to view role combination in a different, more positive light.

The present research
The main purpose of the present field experiment is to obtain empirical support for the above argument by examining whether it is indeed possible to influence the cognitive appraisals that employees make regarding their combination of work and family roles. We aim to achieve this by providing information to participants that makes salient either a scarcity perspective or an expansion perspective on role combination. In line with the above theorizing, we expect a scarcity message to elicit a threat appraisal of role combination since a representation of personal resources as a ‘fixed pie’ implies that that person’s involvement in one domain will harm the other life domain. In contrast, the expansion message is expected to make the individual construe the combination of work and family roles as a challenge as this message implies that it is possible to ‘have it all’ and to achieve that one domain benefits from participation in the other domain.

Thus, compared to participants who receive a scarcity message, those who receive an expansion message are predicted to appraise their combination of work and family roles as less of a threat and more as a challenge (primary appraisal) and should feel more able to cope with it – secondary appraisal (Hypothesis 1). Moreover, participants in the expansion condition are predicted to report less threat-related emotions and more challenge-related emotions when thinking about their situation of role combination. To rule out the possibility that our scarcity and expansion manipulations simply induced negative or positive mood, we also examined several emotions unrelated to threat and challenge (Lazarus & Folkman, 1984). The effects of our manipulation should only appear on the threat and challenge related emotions and not on other negative and positive emotions unrelated to threat and challenge (Hypothesis 2). Furthermore, participants in the expansion condition should report a more positive train of thought about their combination of work and family roles (free thought listing) than those in the scarcity condition (Hypothesis 3).

As outlined earlier, cognitively construing the task of combining work and family roles as a threat or as a challenge should over time affect people’s conflict and facilitation experiences. The present research did not allow for the examination of longitudinal effects. However, we did want to explore whether there were differences
between the experimental conditions in the extent to which participants report conflict and facilitation. This was intended to examine the possibility that individuals who are exposed to an expansion message are already stimulated to reflect more optimistically on their own experiences of role combination than those exposed to a scarcity message.

**Method**

*Design and procedure*

A worldwide operating financial service organization in The Netherlands gave us permission to conduct a field experiment among their employees. We conducted our research among female employees with family responsibilities in that they had a child younger than 6 years of age. We decided to select this relatively homogenous group of employees in order to keep constant as many factors as possible, and to focus on a group of participants for whom concerns about role-combining would be relevant, realistic, and salient. The organization provided the e-mail addresses of a sample of 428 female employees who had a child younger than 6 years of age, which was randomly drawn from the total sample of female employees in the organization with a child in this age category. We invited these women to take part in our on-line survey via e-mail and informed them that they could win one of three coupons worth 50 Euros (US $62.7) when returning the completed survey. Participants were randomly assigned to one of the two experimental conditions (scarcity vs. expansion message).

Prior to completing the survey, participants were instructed to read one of two articles about combining work and family life, which were written by the authors. After a short general introduction to the topic, the information that was provided in the articles explained either the role scarcity theory or the role expansion theory, and to make the message credible supposedly described findings from a large scientific study in this regard. We did not mention statistics, but summarized what the alleged research had shown concerning people’s experiences in combining their work and family roles. The articles were written in the same style, and had the same structure and length (about half a page). The *scarcity message* stated that people possess only a limited amount of energy. It explained that involvement in the work domain can thus negatively affect the family domain, for instance when one is too stressed or tired from work as a result of which one cannot make a good contribution at home. Additionally, it explained that for similar reasons involvement in the family domain can negatively affect the work domain, for instance when one is too stressed or tired from involvement in the family domain as a result of which one cannot make a good contribution at work. This article indicated that, overall, the research findings had shown that negative aspects and experiences appear to predominate when people combine work and family roles. In contrast, the *expansion message* stated that people possess an abundance of energy and that fulfilling one role can create energy for the use in another role. It explained that involvement in the work domain can thus positively affect the family domain, for instance when one feels energized from work which enables one to make a good contribution at home. Additionally, it explained that for similar reasons involvement in the family domain can positively affect the work domain, for instance when one feels energized by involvement in the family domain which enables one to make a good contribution at work. This article indicated that, overall, the research findings had shown that positive aspects and experiences appear to predominate when people combine work and family roles.
Directly after reading the message, participants completed the survey. Upon completing this, participants were fully debriefed. They were informed about the true nature of the study and were told that the views they had read about role combination were one-sided. Moreover, they were informed that the alleged research findings they had read were not based on any real or existing situation. Participants were requested not to discuss the study’s procedure with colleagues until the closing date for participation.

**Measures**

Below, we describe the measures in the order in which they appeared in the survey. The *manipulation check for message content* asked participants: ‘The research findings I just read showed that combining of work and home life-roles is generally experienced to be . . . ‘; Responses were made on a seven-point scale (1 = mainly negative, 7 = mainly positive).

*Cognitive appraisals* were assessed with measures developed by Kessler (1998). To tap *primary appraisal* five items assessed the degree to which participants appraised role-combining as a *threat* (e.g. ‘The combining of my work and home life is frightening to me’, α = .87) and six items assessed the degree to which participants appraised role-combining as a *challenge* (e.g. ‘The combining of my work and home life enables me to learn more about myself’, α = .84). Following Kessler (1998), *secondary appraisal* was assessed with five items, for example ‘I have influence on the way in which I combine my work and home life’ (α = .75). Participants answered on seven-point scales (1 = fully disagree, 7 = fully agree).

**Emotions**

We asked participants to indicate their emotional state when thinking about combining their work and home life with 12 emotion items. We measured three *threat-related emotions* (anxious, worried, and desperate, α = .84) and three *challenge-related emotions* (excited, motivated, and satisfied, α = .83). In addition, we assessed three negative emotions (disappointed, sad, and angry, α = .87) and three positive emotions (relaxed, calm, and tranquil, α = .85) unrelated to threat and challenge (Lazarus & Folkman, 1984). For each emotion, we used the following question format: ‘When I think about combining my work and home life, I feel . . . . . . : (1 = not at all [emotion], 7 = very [emotion]).

**Spontaneous thoughts about combining work and family**

We asked participants to report their thoughts about combining their work and home life using the following open-ended question (free listing): ‘We would now like to ask you to write down your own thoughts about combining your work and home life’. 

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2 To ascertain that the threat-related, challenge-related and the other positive and negative emotions we measured were statistically distinct from each other, we conducted confirmatory factor analyses. Results indeed supported the proposed 4-factor solution, which demonstrated close fit to the data (χ²(48) = 80.76, p < .01, CFI = .97, GFI = .92, IFI = .97, RMSEA = .07). An alternative 2-factor model, distinguishing positive from negative emotions did not adequately fit the data (χ²(53) = 199.52, p < .001, CFI = .87, GFI = .80, IFI = .87, RMSEA = .13).
Work–family conflict and facilitation

Following Carlson, Kacmar, and Williams (2000) and Carlson and Frone (2003) we examined individuals’ conflict experiences by assessing the different types of conflict that people can experience between their work and family roles. Here we used the eight three-item scales developed by these authors to examine strain-based, time-based, behavioural, and psychological conflict in the WF and FW direction. Sample items are: ‘Due to all the pressures at work, sometimes when I get home I am too stressed to do the things I enjoy (strain-based WF conflict)’; ‘I have to miss activities at home due to the amount of time I must spend on work’ (time-based WF conflict); ‘Behaviour that is effective and necessary for me at home would be counterproductive at work’ (behavioural FW conflict); and ‘When I am at work, I often think about things I need to accomplish at home’ (psychological FW conflict, Carlson & Frone, 2003). Scale reliabilities were good, ranging from $\alpha = .71$ to .91.

We used the eight three-item scales developed by Van Steenbergen et al. (2007) to measure individuals’ energy-based, time-based, behavioural, and psychological WF and FW facilitation experiences in combining their work and family roles. Sample items are: ‘When I get home from work I often feel emotionally recharged, enabling me to make a better contribution at home’ (energy-based WF facilitation); ‘The amount of time I spend on my work, stimulates me to undertake enjoyable activities in the time I spend on my home life’ (time-based WF facilitation); ‘Because of the things I learn at home I also function better in social contacts at work’ (behavioural FW facilitation); and ‘Because of my home life, I am more able to put work-related matters into perspective’ (psychological FW facilitation). Scale reliabilities were good, ranging from $\alpha = .79$ to .87. Participants answered on seven-point scales (1 = fully disagree, 7 = fully agree).

Demographic variables

The following background variables were assessed: working hours (contractual hours per week); age (1 = ‘29 years or less’; 2 = ‘between 30 and 39’; 3 = ‘between 40 and 49’; and 4 = ‘50 years or older’); education (1 = lower vocational education or high school; 2 = university or higher vocational education); organizational tenure (in years); salary category (1 = lowest; 15 = highest); marital status (1 = single; 2 = married/cohabiting); number of children; and age of youngest child (in years).

Participants

The response rate was 35.1% ($N = 150$). One participant did not meet the criteria for inclusion as she indicated not to have children, leaving 149 participants in the final sample. These were distributed equally across the two experimental conditions ($N_{\text{scarcity}} = 79$ vs. $N_{\text{expansion}} = 70$).

Participants in this sample (all females) were contracted to work for an average of 31.2 hours per week (range 18–40, $SD = 5.25$) and had an average organizational tenure of 7.9 years (range 1–27, $SD = 4.15$). The organization’s salary system consists of 14 ascending salary categories, ranging from 2 = €1,200 per month to 15 = €9,900 per month (US $1,504–12,415). The average salary category for participants was in the middle of this range: 8.7 (approximately €3,050, US $3,825). Of the participants, 14.1% indicated being in the age category ‘29 years or less’, 79.2% were ‘between 30 and 39’, and 6.7% were ‘between 40 and 49’. About two-thirds of the participants (63.1%) had
received higher education (university or higher vocational education), 36.9% had received lower education (lower vocational education or high school). Most of the women (96.6%) were married or cohabiting, the rest were single. In line with our sampling procedure, all participants had a child aged less than 6 years old. On average, these women had 1.5 children (range 1–3, $SD = 0.60$).

We compared our sample with statistics from the employee database on these control variables for all female employees with a child younger than 6 years of age ($\chi^2$ tests and $t$ tests). This analysis revealed no significant differences indicating that our sample was representative of this group of female employees within the organization as a whole. We also checked whether there were differences between the two conditions prior to our study, by conducting $t$ tests and $\chi^2$ tests for the control variables. No significant differences were found. This indicates that random sampling was successful and that any differences between participants in the experimental conditions cannot be explained by differences in background characteristics.

Results

Manipulation check

The manipulation of message content was successful. Participants who received the expansion message indicated that the article had shown that combining work and home life-roles is generally experienced more favourably ($M = 6.27$, $SD = 0.88$) than did participants who received the scarcity message ($M = 2.35$, $SD = 1.21$, $t(147) = 22.33$, $p < .001$).

Cognitive appraisals

Confirming predictions, participants in the expansion condition appraised role combination as less of a threat ($M = 2.50$, $SD = 1.26$) than participants in the scarcity condition ($M = 3.36$, $SD = 1.36$, $t(147) = 4.05$, $p < .001$), and more as a challenge ($M = 5.69$, $SD = 0.92$ vs. $M = 5.14$, $SD = 0.90$, $t(147) = 3.69$, $p < .001$). Furthermore, participants in the expansion condition indicated that they had greater ability to cope with the task of combining their work and home life-roles - secondary appraisal - ($M = 5.24$, $SD = 1.05$) than participants in the expansion condition ($M = 4.88$, $SD = 1.07$, $t(147) = 1.97$, $p < .05$). Thus, Hypothesis 1 is supported.

Emotions

We predicted that participants in the expansion condition would report less threat-related emotions and more challenge-related emotions associated with role-combining than participants in the scarcity condition (Hypothesis 2). Consistent with this hypothesis, participants in the expansion condition reported less threat-related emotions ($M = 2.08$, $SD = 1.12$) than those in the scarcity condition ($M = 2.48$, $SD = 1.31$, $t(147) = 1.97$, $p < .05$). Likewise, they reported more challenge-related emotions when thinking about combining work and family life ($M = 5.18$, $SD = 1.01$) than participants in the scarcity condition ($M = 4.82$, $SD = 1.19$, $t(147) = -1.98$, $p < .05$). Importantly, as intended, there were no significant differences between the scarcity and the expansion conditions on negative emotions ($t(147) = 1.58$, $p = .12$) or positive emotions ($t(147) = -1.01$, $p = .31$) unrelated to threat and challenge. This enables us to rule out the possibility that our experimental manipulations simply induced positive versus negative mood.
Furthermore, since the TMS posits that cognitive appraisal determines one’s emotional response, we examined whether the effects of the manipulation on the emotions indeed could be explained by individuals’ appraisals. Statistically, this would imply that the impact of the message on the threat-related and challenge-related emotions should disappear when controlling for primary and secondary appraisal. To test this, we conducted an ANCOVA on the threat-related emotions in which we included the primary threat appraisal and secondary appraisal as covariates. Indeed, the results showed that the effects of the message on the threat-related emotions \((F(1) = 1.03, p = .31)\) ceased to be significant when controlling for primary and secondary appraisal. Similarly, an ANCOVA on the challenge-related emotions in which we included the primary challenge appraisal and secondary appraisal as covariates showed that the effects of the message on the challenge-related emotions ceased to be significant \((F(1) = 0.89, p = .35)\). These results are consistent with the theoretical notion that the appraisal of a situation determines individuals’ emotional responses.

**Spontaneous thoughts about combining work and family**

We expected that, compared to participants in the scarcity condition, those in the expansion condition would spontaneously report more positive thoughts about role-combining (Hypothesis 3). Of the 149 participants, 130 participants wrote down one or more comments about combining their work and home life. On average participants provided 2.2 comments (range 1–10, \(SD = 1.55\)). There were no significant differences across the conditions in the number of comments provided. Two independent raters who were blind to our prediction coded each comment as either ‘positive’ or ‘negative’. They could also categorize a comment as ‘neutral’. The inter-rater agreement was highly satisfactory (Cohen’s \(\kappa = .88\)).

Examples of comments the raters coded as **negative** are: ‘Running to and fro, stressing in traffic because you have to pick up your child, and having the feeling that you’re not performing optimally at work and at home’; ‘Because of a busy job and making long hours I spend less time with my family than I would like to. I have very little time for hobbies, like working out. I often have to miss department outings because I have to be home in time to fulfil my responsibilities there. I would like to have more space for quality time’. Examples of **positive** remarks are: ‘Because of my work, I am certainly a happier person, and as a consequence a better partner and mother at home. I would be very unhappy if I did not have a job, my world would become much too small for me’; ‘I feel that having children has a positive effect on my work: (1) I am better able to put aside my work while at home; (2) I am better able to put work matters into perspective; and (3) It makes me feel cheerful, children give me a positive feeling’.

To test whether participants in the expansion condition reported more positive thoughts compared to participants in the scarcity condition, we calculated the percentage of positive remarks as a function of the total number of positive and negative remarks for each participant. As hypothesized, participants in the expansion condition reported proportionally more positive thoughts about combining their work and family roles (64.1%) than did those in the scarcity condition (46.3%, \(t(128) = 2.46, p < .01\)). Also when dividing our participants in three groups, namely, (a) participants who reported a higher percentage of positive than negative thoughts, (b) participants who reported an equal percentage of positive and negative thoughts, and (c) participants who reported a higher percentage of negative than positive thoughts (see Table 1), a significantly greater number of participants in the expansion condition than in the
scarcity condition ($\chi^2(2) = 6.50, p < .05$) was in a positive mindset. Thus, hypothesis 3 is supported.

**Work–family conflict and facilitation**

We explored whether there were differences between the experimental conditions in the extent to which participants reported conflict and facilitation between their work and family roles. Results of a MANOVA on the conflict scales revealed no significant differences between the two conditions ($F(8, 140) = 0.54$, $p = ns$). However, a MANOVA on the facilitation scales showed that, overall, participants in the expansion condition reported higher levels of facilitation than those in the scarcity condition ($F(8, 140) = 2.12, p < .05$, $\eta^2 = .11$).

**Discussion**

In the present research, we used insights from the TMS concerning the role of cognitive appraisals in stress experiences (Lazarus & Folkman, 1984) to examine cognitive appraisals relating to the combination of work and family roles. The main purpose of our research was to examine whether cognitive appraisals regarding this combination can be influenced by informational support. In a field experiment, we provided participants with information that supported either a *role expansion perspective* or a *scarcity perspective* on human energy. Based on studies in the stress literature showing that cognitive appraisals can be affected by exposure to relevant information (e.g. Haslam, Jetten, O’Brien, & Jacobs, 2004; Lazarus, 1966; Tomaka et al., 1997), we predicted and found that it was possible to exert influence over the way in which individuals appraise their own combination of work and family roles. Consistent with predictions, employees in the expansion condition appraised their combination of work and family roles more as a challenge and less as a threat (primary appraisal) than those in the scarcity condition. Moreover, they appraised their capacity to cope with role combination (secondary appraisal) as being greater than employees in the scarcity condition.

Consistent with these effects on primary and secondary appraisal, employees also felt differently about combining their work and family roles at the emotional level. That is, employees in the expansion condition reported a higher level of challenge-related emotions (e.g. excitement) concerning role combination and a lower level of threat-related emotions (e.g. anxiety). As predicted, there were no differences between the conditions in positive or negative emotions unrelated to threat and challenge, which

**Table 1. Spontaneous positive and negative thoughts about role-combining**

<table>
<thead>
<tr>
<th>Message</th>
<th>Scarcity</th>
<th>Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive thoughts</td>
<td>46.3%</td>
<td>64.1%</td>
</tr>
<tr>
<td>Negative thoughts</td>
<td>53.7%</td>
<td>35.9%</td>
</tr>
</tbody>
</table>

Participants divided in three groups:

<table>
<thead>
<tr>
<th>Category</th>
<th>Scarcity</th>
<th>Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>26 (37.7%)</td>
<td>36 (59.0%)</td>
</tr>
<tr>
<td>Neutral</td>
<td>11 (15.9%)</td>
<td>7 (11.5%)</td>
</tr>
<tr>
<td>Negative</td>
<td>32 (46.4%)</td>
<td>17 (29.5%)</td>
</tr>
</tbody>
</table>
indicates that the manipulation messages indeed stimulated employees to make a threat or challenge appraisal of role combination, rather than simply inducing them to have a positive or negative mood. Furthermore, in this experiment, employees wrote down their own spontaneous thoughts about combining work and family (free thought listing). These qualitative data, too, revealed very vividly that, compared to the scarcity condition, employees in the expansion condition were more likely to think about the positive aspects of combining work and family. This suggests that the expansion message about role combination really did set in train a different, more positive thought process about role-combining than the scarcity message.

Along the lines of the TMS, we have argued that people’s cognitive construal of combining work and family roles as a challenge rather than a threat over time should cause them to experience more facilitation and less conflict between these roles. Although the present study did not involve the examination of longitudinal effects, we did include facilitation and conflict measures in the study to explore whether the manipulation messages make employees reflect differently on their own experiences of role combination. There were no differences between the conditions in the report of conflict. However, compared to the scarcity condition, employees who read the expansion message reflected more optimistically on their experiences of role combination in that they reported a higher level of facilitation experiences between work and family. Although somewhat speculative, a possible explanation for these differential findings for conflict and facilitation is that scarcity is the predominant social norm that employees are exposed to in the workplace (Acker, 1999; Ferree, 1990; Williams, 2000), and as a result they have often thought about the way in which their work and family roles negatively interfere with each other and have a clear idea about the amount of conflict they experience. By comparison, the role expansion message could have provided a ‘new perspective’ on the matter. Thus, it may be the case that being informed about the expansion perspective makes participants aware of facilitation aspects in role combination that they had not considered before.

In sum, the present experiment showed that it is possible to influence the way in which employees cognitively appraise the combination of their work and family lives by providing informational support. Assuming a scarcity perspective on the combination of these roles, the literature has for a long time advanced a one-sided and largely negative view of the work-family interface. Recently, however, scholars have started to pay attention to the positive aspects of role combination by adopting the role-expansion perspective (Greenhaus & Powell, 2006; Marks, 1977; Voydanoff, 2004). We connected these different theoretical perspectives on role combination by demonstrating that information conveying either one of these perspectives affects the individuals’ own views about how they combine work and family roles. In our opinion, these findings have theoretical implications for the work–family field as well as important practical implications.

**Theoretical implications and directions for future research**

We believe this research points to novel and fruitful directions for future work–family research, as it suggests that it is worth devoting more attention to the role that cognitive appraisal processes play in people’s experiences of work–family role combination. As a theoretical framework the TMS provides us with interesting new perspectives for future research, both theoretically and methodologically. In this study, we have shown that informational messages about role combination affect the extent to which participants...
appraise their own combination of work and family roles as a threat or as a challenge, and impact upon their emotional state as well as the thoughts they have about role combining. However, besides these immediate effects, theoretically, the adoption of a threat or challenge appraisal and one’s immediate emotional response should affect how the individual deals with the situation. In further research, it would therefore be interesting to include behaviour measures in order to examine whether individuals who are stimulated to appraise role combination as a challenge rather than a threat also display behavioural differences (e.g. more proactive searching for information about successful work–family role combination).

Moreover, future longitudinal research should explore the long-term effects of informational influence and whether these effects could be prolonged - for instance by providing several repeated messages over time - and when and how internalization of particular views occurs (cf. Turner, 1991). Longitudinal research is also needed to systematically examine whether the adoption of a challenge or threat appraisal indeed affects people’s further experiences of facilitation and conflict in role combination.

The current findings suggest that whether we see the combination of work and family roles as a threat or a challenge is in part influenced by our social context and the messages it communicates. In this respect, a further relevant theoretical question is how social identity relates to this process (cf. Haslam, 2004). Others in our social environment and the groups we belong to shape what we view as important, desirable, ignoble, or damaging, thus influencing how we ourselves cognitively construe events and situations in our lives. Social identity theory suggests that appraisal processes are structured by people’s internalized group memberships in such a way that in-group members are seen as a more relevant source of information than members of an out-group (Ellemers, De Gilder, & Haslam, 2004; Haslam, 2004; Haslam & Reicher, 2006; Turner, 1991). This would imply that the impact of informational support depends in part on the source providing it (see also Haslam et al., 2005). In this regard, it would, for example, be interesting to empirically test whether the impact of informational support provided by males or females is dependent upon the gender of the message recipient and also their gender identification in ways predicted by the social identity approach (e.g. Ellemers, Van Rijswijk, Roefs, & Simons, 1997; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002). Such research would provide valuable insights into the conditions under which intervention programs aiming to influence individuals’ subjective appraisals and experiences are more likely to be successful.

Furthermore, we think it is important for future research to examine further the effects of informational support in social support relationships. Although work–family scholars have devoted attention to the effects of instrumental and emotional support (e.g. Wayne, Randal, & Stevens, 2006) in social support relationships, knowledge about the effects of providing information that aims to change one’s interpretation of a situation is lacking. For example, how do the views of one’s partner in an intimate relationship affect one’s appraisals and experiences in this respect? And how does the way in which work–family issues are discussed among peers who can either highlight the problems or the positive aspects of combining work and family roles impact upon the individual’s own views and experiences over time?

Finally, the TMS could be useful to further our understanding of the relationship between personality variables on the one hand and conflict and facilitation experiences in role-combining on the other. According to Judge, Locke, and Durham (1997), dispositional traits can be regarded as the ‘lens’ through which situational appraisals are made. As such, personality factors can influence how an individual
perceives, appraises, and reacts to situations of work–family role combination (see also Stoekaert, Chiu, & Greenhaus, 2002). Thus, it could be that certain personality variables, such as ‘openness to experiences’ (Wayne, Musisca, & Fleeson, 2004), make people more prone to appraise the situation of role combination as a challenge in the first place (Lazarus & Folkman, 1984; Podsakoff et al., 2007). However, it could also be that personality variables moderate the effects of informational support. For example, it may be that individuals high in ‘openness to experiences’ are more easily induced to feel challenged when they informational support conveying an expansion perspective than individuals scoring low on this personality variable.

**Practical implications**

This field experiment showed that receiving a role expansion or scarcity message on role combination can affect how an individual appraises the combination of work and family roles in his or her own life. Importantly, this suggests that the messages communicated by others, for example, at work or at home can serve to shape the perspective the individual takes on combining work and family roles. As we only examined the effects of a single exposure to a scarcity or expansion message one might question the broader implications of such interventions as these results merely demonstrate the immediate effects informational support can have on people's appraisals. However, we think the effectiveness of this relatively circumscribed manipulation on people's own appraisals points to the force of such informational provision. Furthermore, it should be noted that in everyday life individuals are often chronically exposed to these kind of messages in their interactions with others. For instance, several work–family scholars have pointed out that many organizations - and their managers - act under an assumption that employees' commitment to roles other than those they have at work will only be achieved at the expense of employees' commitment to and performance at work, thus communicating a scarcity perspective to their employees on a day-to-day basis (e.g. Graves, Ohlott, & Ruderman, 2007; Kofodimos, 1990). Likewise, when one's colleagues at work or friends at home approach role combining from a scarcity perspective - for example by only talking about the incompatibilities and difficulties they are faced with - the individual is exposed to this type of information on a daily basis. The present findings provide insight in the mechanism through which receiving such information from others can affect cognitions and emotions about one's own combination of work and family roles. For organizational practice this suggests that it is important to pay attention to the way in which this topic is discussed and framed in organizational communications. Rather than communicating a one-sided scarcity perspective to employees (Acker, 1999; Ferree, 1990; Williams, 2000), the present findings call for organizations and their agents (e.g. managers) to recognize and ‘place the spotlight on’ the benefits side to role combination, as this would make it more likely that employees appraise and approach the combination of work and family roles from a more positive perspective.

Although future research can address some of the issues raised in more detail, the present research provides a promising first step towards designing an intervention that can help employees appraise role combining in a different, more positive light (Grzywacz & Bass, 2003). Previous initiatives have focused on providing employees with formal work–family benefits or programs that support role combination (e.g. better work-time arrangements, day-care facilities, Thompson & Potras, 2005) and providing informal support (e.g. managerial support for work–family issues; Thompson, Beauvais, & Lyness, 1999;
Van Steenbergen, Ellemers, & Mooijaart, in press). However, Lazarus and Folkman (1984) have emphasized that, to be effective, any stress management program must also try stimulate the person to *appraise* situations in new ways. Therefore, alongside these changes, we propose that it may also be beneficial to look into possibilities for implementing intervention programs that enhance positive subjective appraisals of role combination by providing informational support that alludes to the positive side of combining work and family.

**Limitations and strengths of the present research**

Despite the theoretical and practical contributions of this research, there are some limitations we should acknowledge. First, this study was conducted among a select sample of participants, namely employed women with young children. We selected this relatively homogenous group of employees for our field experiment to keep constant as many factors as possible and focus on a group of participants for whom concerns about role-combining would be relevant and realistic. On theoretical grounds, we expect that the study’s conclusion that cognitive appraisals of role combination can be impacted upon by means of informational support should generalize to other groups of employees in other organizational contexts. However, future research is needed to test whether this indeed is the case. Second, as noted above, the present study did not involve an examination of the *long-term* effects of our manipulation. Accordingly, an important next step for future research is to examine closely how long the effects of this type of informational influence last, and to establish, *inter alia*, whether providing repeated messages can prolong these effects.

Despite these limitations, we believe the present study makes a significant contribution to the work-family literature. A recent review of research methods in IO/OB work-family research showed that only a few studies have examined the work-family interface through the lens of frameworks other than scarcity-theory and that scholars have almost exclusively relied on cross-sectional and correlational data (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007). In order to advance the field, commentators have recommended, amongst other things, examination of individuals’ positive (as well as negative) experiences of role combination and the use of experimental research designs. From this perspective, strengths of the current research are that we examined both the positive as well as the negative side of role combining and that we tested our hypotheses using experimental methodology. In this way, we have provided empirical evidence to support the contention that it is possible to impact upon people’s cognitive appraisals of combining work and family roles by means of informational support (Grzywacz & Bass, 2003). Moreover, we used both structured closed-format response scales and free thought-listing methods with a view to capturing people’s spontaneous thoughts. Results obtained with both methods supported our predictions. Finally, a strong and novel feature of this research is that it allows us to make inferences about ‘real employees with real family responsibilities’ because we conducted our experiment among organizational employees who actually combine work and family roles, rather than, for instance, among students for whom such a situation still is largely hypothetical.

**Conclusions**

To our knowledge, this is the first study in the work-family literature that uses a field experimental methodology to examine the role that cognitive appraisals play in shaping
people’s understanding of work–life balance. In demonstrating the sensitivity of these appraisals to message content, the present research offers new insights into the psychological and practical dynamics that relate to the experience of combining work and family roles. At a theoretical level, a focus on the contribution of cognitive appraisal points to ways of enhancing our understanding of the stresses associated with role combination. At a practical level, this research points to the potential for intervention programs that provide informational support that can ameliorate the stress of role combination. In both regards, the research encourages a more nuanced perspective on the challenges of combining work and family lives than has prevailed to date. For not only do we see that ‘there is nothing either good or bad but thinking makes it so’, but also see that the basis of that thinking is both social and political. It is not the case, then, that stress is all ‘in the mind’. Rather, it is the society we create (and the messages this communicates) that structures the stresses we have, and it is partly through changes to that society that stress can be overcome (Haslam & Reicher, 2006).

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References


Cognitive appraisals of role combination


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