



UvA-DARE (Digital Academic Repository)

I learn therefore I apply?

Towards a better understanding of the way antecedents influence the transfer of training content to work practice

de Jong, B.

Publication date

2023

[Link to publication](#)

Citation for published version (APA):

de Jong, B. (2023). *I learn therefore I apply? Towards a better understanding of the way antecedents influence the transfer of training content to work practice*. [Thesis, externally prepared, Universiteit van Amsterdam].

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.





CHAPTER 6

General Discussion and Conclusion

6.1. General Discussion and Conclusion

The aim of this dissertation was to investigate how personal and contextual antecedents and types of transfer motivation together (indirectly) predict transfer of training. More research into this is required as the application of training content in practice remains low despite the need of organizations for employees that develop themselves through training (Grossman & Salas, 2011; Poell, 2017; Segers & Gegenfurtner, 2013). Knowledge and technological developments require individuals to continuously develop themselves (Laal & Salamati, 2012). Not keeping up with these developments can make organizations less effective, leading to a lower quality service towards society or a worse competitive position compared to other organizations (Van Merriënboer et al., 2009).

Previous research identified transfer motivation as an important predictor of the extent to which transfer of training occurs (Burke & Hutchins, 2007; Gegenfurtner et al., 2009b; Grohmann et al., 2014; Massenberg et al., 2015, 2017). If individuals are more motivated, it is more likely that transfer occurs (Gegenfurtner et al., 2009b). Previous transfer of training research often examined transfer motivation as a one-dimensional construct and did not investigate different types of transfer motivation (Gegenfurtner et al., 2009b), even though motivational theories stress that motivation is multidimensional (e.g., Eccles & Wigfield, 2020; Ryan & Deci, 2020). The one-dimensional approach of previous studies may explain why the influence of transfer motivation on transfer of training differs considerably across studies and why the influence of transfer motivation on transfer of training is not well understood (Gegenfurtner et al., 2009b). Moreover, existing transfer of training frameworks such as the learning transfer system inventory (Holton et al., 2000) and the model of the transfer process (Baldwin & Ford, 1988) do not take interrelationships between different antecedents of transfer motivation and transfer of training into account, whereas this would provide insight in the unique contribution of these antecedents in (indirectly) predicting transfer of training.

The unified model of task-specific motivation (UMTM) allows for investigating transfer motivation as a multidimensional concept by incorporating affective and cognitive types of motivation (i.e., affective and cognitive valences; De Brabander &

Martens, 2014). Moreover, the UMTM includes personal and contextual antecedents of motivation (i.e., sense of personal autonomy, perceived freedom of action, sense of personal competence, perceived external support, sense of personal relatedness and subjective norm), that in previous research have been identified as antecedents of transfer of training (e.g., Blume et al., 2010; Gegenfurtner et al., 2009b; Grossman & Salas, 2011; Tonhäuser & Büker, 2016; Velada et al., 2007; Weisweiler et al., 2013). Unlike existing models that are used to predict and explain transfer of training, the UMTM also suggests how different personal and contextual antecedents relate to each other. Previous UMTM research has provided evidence for the merits of the UMTM (De Brabander & Glastra, 2018, 2021; De Brabander & Martens, 2018). However, no study investigated the UMTM in the transfer of training context, or if components of the UMTM are able to predict task-specific behavior. The merits of the UMTM as a framework to predict transfer are therefore not well understood. Investigating transfer (motivation) through the lens of the UMTM can provide insight into why and how transfer motivation and its antecedents predict transfer of training.

The UMTM can also be a useful framework to shed light on four themes for which previous review studies indicated that more research is warranted (Baldwin et al., 2017; Blume et al., 2010; Ford et al., 2018; Rahyuda et al., 2014), i.e.: (1) it is unclear how personal and contextual antecedents and types of transfer motivation develop over time, (2) it is unclear how patterns in personal and contextual antecedents and types of transfer motivation that differ between individual trainees influence transfer of training of these trainees, (3) it is unclear whether different training characteristics influence experiences in personal and contextual antecedents and types of transfer motivation, and (4) it is unclear which personal and contextual antecedents and types of transfer motivation are influenced by transfer of training interventions. The UMTM can be employed as a model that is able to describe the dynamics between antecedents and types of transfer motivation in (indirectly) predicting transfer of training, via which it can provide insight in the four gaps described above.

Therefore, this dissertation investigated the following research question: *How is transfer of training influenced by its antecedents as seen through the lens of the UMTM?* To answer this research question, four studies have been conducted that examined

(parts of) the aforementioned gaps in the transfer of training literature through the lens of the UMTM. Throughout these studies, data was collected by means of a questionnaire that measures the UMTM components. This questionnaire was filled in by trainees after attending trainings in the context of continuous education in the Dutch judiciary and/or the police. Based on results provided by the different studies, theoretical implications of the UMTM and of the transfer of training literature in general are discussed.

6.2. Theoretical Implications for the UMTM

6.2.1. The UMTM can be Used as Framework to Predict and Explain Task-Specific Behavior

Throughout this dissertation, evidence is provided for the dynamics of the UMTM. Consistently across the studies, personal and contextual antecedents of the UMTM predict the valences, the valences predict transfer intention (i.e., readiness for action) and transfer intention predicts transfer of training (i.e., action). This is in line with previous UMTM research conducted in the teacher professionalization context (De Brabander & Glastra, 2018, 2021; De Brabander & Martens, 2021). Importantly, chapter two and five show that components of the UMTM can predict self-reported transfer of training, whereas chapter three shows that components of the UMTM can predict external-reported transfer of training. External-reports of transfer are considered more objective than self-reports (Taylor et al., 2009), which are susceptible to common method bias (Podsakoff et al., 2003), upward bias and leniency (Gegenfurtner, 2011). It should be noted, however, that transfer intention is able to explain a modest amount of variance of transfer of training, implying that thought should be devoted to what other factors predict transfer of training. Taken together, this dissertation provides evidence that the UMTM is a suitable model to investigate the influence of antecedents on predicting task-specific behavior. Moreover, the results of this dissertation underline that the UMTM also works in other contexts than the teacher professionalization context, which implies that the UMTM can be employed across different contexts to predict and explain task-specific behavior.

6.2.2. The Influence of the UMTM Components Seems to be Context-Dependent

This dissertation also shows that both personal and contextual antecedents of the UMTM are predictors of the valences, transfer intention and transfer of training, in line with previous UMTM research (De Brabander & Glastra, 2018, 2021; De Brabander & Martens, 2021). However, it seems that whether personal and contextual antecedents of the UMTM predict outcome variables identified by the model depends on to the context in which they are studied. Throughout the different chapters, autonomy related antecedents play a minor role in predicting transfer of training via the valences and transfer intention. This can be explained by the context in which the research of this dissertation has been conducted. As noted in chapter two, judicial employees tend to have much autonomy in carrying out their profession and might therefore take freedom to apply training content for granted (Taal, 2016). As a result, the influence of autonomy related components on the valences might be limited. The importance of sense of personal competence also seems to differ per context. In the teaching professionalization context, feelings of competence only played a minor role (De Brabander & Glastra, 2018; De Brabander & Martens, 2018), whereas sense of personal competence plays a major predictive role for the valences in the judicial research context of this dissertation. Finally, it seems that antecedents of the UMTM also can be irrelevant in predicting the valences. Throughout this dissertation, sense of personal relatedness did not predict the valences as expected by De Brabander and Martens (2014). This might be explained by De Brabander and Martens (2018), who theorize that sense of personal relatedness is more stable across different task-specific behaviors than the other antecedents. As a result, it might not have affected individuals in their motivation to apply training content in practice.

Taken together, the importance of the UMTM components in (indirectly) predicting task-specific behavior is not deterministic. De Brabander and Glastra (2018) already showed that the importance of the valences in predicting readiness for action (i.e., transfer intention) depended on the specific tasks for which the UMTM was employed. This dissertation shows that the influence of the UMTM components on readiness for action also differs per professional context. As such, the UMTM seems to be both task- and context-dependent.

6.2.3. The Interplay Between the Valences in Predicting Task-specific Behavior is Complex

Concerning the valences, the different chapters show that multiple valences play a role in predicting transfer intention and transfer of training, in line with previous UMTM research (De Brabander & Glastra, 2018, 2021; De Brabander & Martens, 2018). Chapters two, three and five show that positive cognitive valences predict transfer intention, whereas chapters three and five show that negative cognitive valences and the affective valences also predict transfer intention and, indirectly, transfer of training.

For most individuals, the valences seem to co-occur in specific ways as chapter four shows that positive cognitive valence co-occurs with a high positive and a low negative affective valence. This dependency seems to indicate that most individuals have the tendency to align their thoughts and feelings, perhaps to avoid internal conflicts, when they aim to apply training content in practice. However, this dependency does not apply for all individuals. Chapter four shows that personal and nonpersonal cognitive valences and positive and negative cognitive valences can co-occur independently from each other for a small group of individuals. This is in line with the independence assumption made by De Brabander & Martens (2014) and shows that some individuals make a distinction between positive and negative consequences for themselves and for others. Moreover, it is even possible for some individuals to expect strong positive and negative consequences simultaneously, while still experiencing a high transfer intention and transfer of training. Taken together, these results underline a complex interplay between different valences in predicting transfer intention and that these valences do not work similarly for each individual. Nevertheless, it can be concluded that it is important for most individuals that positive valences are stimulated, and negative valences diminished.

6.3. Implications for the Transfer of Training Literature

6.3.1. Different Dimensions of Transfer Motivation have Different Effects on Transfer of Training

The results acquired throughout this dissertation also provide multiple, broader implications for the transfer of training literature. This dissertation shows that

different types of motivation (i.e., affective and cognitive valences) have different effects on transfer intention and transfer of training. These findings support previous transfer motivation research that also showed that types of transfer motivation have a different predictive value for transfer intention and/or transfer of training (Curado et al., 2015; Gegenfurtner, 2013; Gegenfurtner et al., 2009a, 2016; Gegenfurtner & Quesada-Pallarès, 2022; Tafvelin & Stenling, 2021). Thus, this dissertation underlines that transfer motivation also can be considered a multidimensional construct. It shows that it matters which type of motivation trainees have to apply training content and might provide an explanation for the heterogeneity in the effect size between transfer motivation and transfer of training when transfer of training is measured one-dimensionally (Gegenfurtner et al., 2009a). As such, approaching transfer motivation as a multidimensional construct refines our understanding of the influence of transfer motivation on transfer of training.

6.3.2. Changes in Antecedents of Transfer of Training Predict Transfer of Training

Results of chapter two show that positive changes in the personal and contextual antecedents of the UMTM over time relate to changes in types of transfer motivation and also predict transfer intention and transfer of training. These changes in personal and contextual antecedents and types of transfer motivation align with the study of Huang et al. (2017), who showed that initial attempts to transfer had effects on their rate of transfer later on. To date, transfer of training has often been considered to be a stable construct, for which trainees in hindsight once indicate whether it occurred or not (Blume et al., 2010; Huang et al., 2017; Schoeb et al., 2021). This also applies for personal and contextual antecedents and types of transfer motivation, which often are only measured once as well. Yet, this has not brought us sufficiently close to which antecedents explain ‘on the spot’ whether transfer does or does not occur and how previous experiences affect the decision to transfer training content or not (Ford et al., 2018). The results of this dissertation show that going through transfer opportunities might constitute a feedback loop in which applying training content affects personal and contextual antecedents and types of transfer motivation, which again affect transfer of training. Such a feedback loop might provide an explanation for why changes in transfer of training over time occur.

6.3.3. Different Patterns in Antecedents Among Individual Trainees Matter

This dissertation also shows that approaching trainees in a more individualized way in research and training practice has an added value. Chapter four provides evidence that groups of individuals can differ in their manifestation of different types of transfer motivation and that these groups differ in transfer intention and transfer of training. These results corroborate previous research showing that transfer motivation profiles exist and that members of different transfer motivation profiles score differently on transfer of training (Quesada-Pallarès et al., 2022). These previous findings are extended by showing that there are specific patterns in both affective and cognitive types of transfer motivation that co-occur with specific differences in personal and contextual antecedents of transfer motivation. Based on insights acquired in chapter four and past research, evidence is provided that it might be valuable to move away from a 'one size fits all approach' in transfer of training research and to examine differences between individual trainees in their motivation to apply training content in practice.

6.3.4. Training Characteristics Influence Types of Transfer Motivation and Their Antecedents

The different chapters also show that training characteristics affect types of transfer motivation and personal and contextual antecedents. Chapter three shows that trainees participating voluntarily in trainings score lower on negative cognitive valences than trainees participating mandatorily. This is in line with previous research showing that voluntary participation is more beneficial for transfer motivation and/or transfer of training than mandatory participation (Curado et al., 2015; Gegenfurtner et al., 2016; Salamon et al., 2021). Chapter five shows that the effects of goal-setting on personal and contextual antecedents and types of transfer motivation differ between hard- and soft-skill trainings and between trainings that were provided online and in-person. Outcomes of chapter three and five underline the importance of controlling for specific training characteristics in transfer of training research, for example in intervention research. As such, this dissertation underlines that training characteristics are influential for predicting transfer of training.

6.3.5. Transfer of Training Interventions May Need to be Intensified to be Effective

A final implication revolves around transfer of training interventions. In chapter five, a goal-setting intervention was employed as previous research showed promising effects of this intervention for transfer of training (e.g., Brown et al., 2016; Johnson et al., 2012; Richman-Hirsch, 2001). However, the effects of goal-setting are limited to enhancing some contextual antecedents of the UMTM and some types of transfer motivation, whereas no effects were found for other components. These outcomes corroborate with the meta-analysis of Blume et al. (2010), who found limited effects of interventions, such as goal-setting, for transfer of training. Transfer of training interventions in general tend to be short, which may impede their effectiveness (Blume et al., 2010). Therefore, it seems that transfer of training interventions may need to be intensified to make them more effective.

6.4. Directions for Future UMTM Research

There are several key findings for the UMTM that can be derived from the chapters in this dissertation. Firstly, components of the UMTM are able to predict task-specific behavior (i.e., transfer of training) via readiness for action (i.e., transfer intention) in the transfer of training context. Yet, the amount of explained variance of transfer of training is modest. Secondly, the predictive value of the different components of the UMTM seems to depend on the context in which it is employed. Thirdly, there seems to be a complex interplay between the valences in predicting task-specific behavior. These findings warrant additional research to get more insight into the dynamics of the UMTM. Below, several recommendations for future UMTM research are outlined.

It is recommended to conduct research in which the UMTM is complemented with other antecedents that have been found to be relevant in the transfer of training context. For example, it could be relevant to include components like training quality, motivation to learn and trainee personality. Previous research indicates that these components can play a role in predicting transfer motivation and/or transfer of training (Blume et al., 2010; Gegenfurtner et al., 2009b; Grohmann et al., 2014; Grossman & Salas, 2011; Massenbergh et al., 2017; Velada et al., 2007). Including these components can provide further insight into the importance of the different UMTM

components in predicting the valences, transfer intention and transfer of training. Ultimately, complementing the UMTM with these components may enhance the amount of explained variance of task-specific behavior, which increases our understanding of the extent to which transfer occurs.

It is also recommended to conduct more transfer of training research in which the UMTM is employed in different professional contexts. This provides more insight into the context-dependency of the UMTM. For example, it could be interesting to compare a context in which employees tend to have much freedom to perform their work (e.g., the judiciary) with a context in which employees tend to have a low amount of freedom. This can also unveil the utility of employing the UMTM in different work transfer of training contexts.

A final recommendation is to explore the interplay between valences in predicting transfer intention. This could be done by investigating valence profiles over time. It is unclear how stable valence profiles are and whether the independence of the cognitive valences for some individuals also hold over time. While investigating the stability of valences, it could also be interesting to examine whether manifestations of the personal and contextual UMTM antecedents differ over time for members of specific valence profiles. Eventually, this could provide more insight into the interaction between different valences in predicting transfer intention and which valences (together) are most important in predicting transfer intention and transfer of training over time.

6.5. Directions for Future Transfer of Training Research

There are a number of key findings for the transfer of training literature as well. Firstly, antecedents of transfer motivation and types of transfer motivation change over time. Secondly, training characteristics influence experiences of personal and contextual antecedents and types of transfer motivation. Thirdly, individual differences in types of transfer motivation co-occur with differences among personal and contextual antecedents, transfer intention and transfer of training. Fourthly, transfer of training intervention designs may need to be intensified to increase their effectivity. Below several recommendations for future transfer of training studies are provided.

To acquire more insight in changes in personal and contextual antecedents and types of transfer motivation over time, it is recommended to measure these components more frequently. An interesting approach to do so has been provided by Huang et al. (2017), who investigated opportunities to transfer and transfer of training once a week for six weeks. Eventually, this uncovered different transfer trajectories among trainees (Huang et al., 2017). Such a time intensive design could also be employed for transfer motivation and its antecedents. This can show which personal and contextual antecedents and types of transfer motivation are most important in the decision-making process for choosing to apply training content or not (Ford et al., 2018) and unravel whether the influence of these components change over time (Huang et al., 2017).

It is also recommended to develop a better understanding of why different training characteristics have different effects on experiences of personal and contextual antecedents and types of transfer motivation. Curado et al. (2015) and Gegenfurtner et al. (2016) argued that a lack of autonomy and freedom of choice could explain the adverse effects of mandatory training participation in comparison to voluntary participation, whereas Salamon et al. (2021) showed that the adverse effects of mandatory participation can be reduced by sufficient supervisory support. Laker and Powell (2011) provided an overview of why specific differences in the antecedents of transfer motivation and transfer motivation could be expected between soft- and hard-skill trainings. To date, however, research investigating differences between training characteristics in the extent to which personal and contextual antecedents of transfer (motivation) are experienced is scarce. Moreover, existing studies did not investigate how these differences affect types of transfer motivation, transfer intention and transfer of training. Uncovering these differences might provide an explanation for why transfer of training happens more often for some types of trainings in comparison to other types (e.g., Gegenfurtner et al., 2016; Salamon et al., 2021). As such, it would be interesting to employ a framework such as the UMTM to investigate differences in personal and contextual antecedents, types of transfer motivation and transfer of training for specific training characteristics (e.g., mandatory versus

voluntary training participation). This can uncover which underlying components explain differences between training characteristics in transfer of training.

Another recommendation is to conduct more qualitative research to explain differences between individual trainees in patterns of types of transfer motivation and its antecedents. The aim of such research would be to examine how individual trainees differ in their expectations of the trainings, how they experience trainings and their expectations about applying the training content in their work (cf. Kahn & Girvan, 2017). This could reveal relevant individual differences that might matter for transfer motivation and transfer of training that are currently unknown.

A final recommendation is to investigate the effectiveness of intensifying transfer of training intervention designs for personal and contextual antecedents, types of transfer motivation, transfer intention and transfer of training. For example, by combining pre- and post-training interventions (Baldwin et al., 2017), integrating an intervention throughout the training (Blume et al., 2010) or combining post-training interventions (Ford et al., 2018). When employing such an intervention design, it is important to aim at stimulating both personal and contextual antecedents of transfer motivation to stimulate positive and diminish negative valences. This can enhance transfer intention and transfer of training.

6.6. Limitations

This dissertation contains a couple of limitations that need to be taken into account when the outcomes are interpreted. Firstly, transfer of training has been administered relatively shortly after each training. Even though this enabled us to acquire a sufficient amount of response in comparison to when measurements are taken after a longer period (De Heer & De Leeuw, 2002), it also implies that it is unclear if the UMTM can predict long term transfer of training. This might matter since transfer of training can change over time, i.e. diminish (Blume et al., 2010; Saks, 2013; Saks & Burke, 2012) or increase (Cromwell & Kolb, 2004; Gumuseli & Ergin, 2002). It is therefore important for future research to also measure transfer of training after a longer period of time when the UMTM is employed, for example after a year (cf. Saks & Burke, 2012). This could provide insight in whether the UMTM can predict task-specific behavior in the long term.

Secondly, a questionnaire was employed that uses one item per construct to measure the UMTM constructs. The different chapters provided evidence for the reliability of the questionnaire and that the questionnaire was able to replicate the proposed dynamics of the UMTM. Furthermore, using such a questionnaire has a clear benefit in terms of survey length. Individuals tend to be hesitant to fill in longer questionnaires (Bean & Roszkowski, 1995), leading to more participant dropout (Donnellan et al., 2006). It also increases the likelihood of a sampling bias (Moore et al., 2002) which undermines the generalizability of the outcomes found in a study (McKnight et al., 2007). Using short questionnaires can remedy this issue as filling them in is more appealing to participants (Allen et al., 2022; Gogol et al., 2014). Nevertheless, it should be acknowledged that questionnaires using one item per construct have drawbacks when constructs are multifaceted, which can lead to a loss of information (Allen et al., 2022; Gogol et al., 2014). This might have been the case with the UMTM constructs which in some cases are multifaceted (e.g., perceived external support, subjective norm). It is therefore recommended for future studies to compare the one item per construct UMTM questionnaire with a UMTM questionnaire containing multiple items per construct. Such a study can provide insights in the extent to which the one item per construct questionnaire is able to reproduce the information acquired through multiple item questionnaires and to examine if it is able to reproduce a similar nomological network as a UMTM questionnaire containing multiple items per construct (cf. Gogol et al., 2014).

Thirdly, cross-sectional, longitudinal, person-centered and quasi-experimental designs were used throughout this dissertation. Despite this wide diversity in quantitative designs, a qualitative design might provide further insights into the dynamics of the UMTM. For example, Glastra and De Brabander (2021) found more in-depth insights with interview data as to why individuals experienced differences in their feelings of autonomy and the valences when they themselves decided to participate in teacher professionalization activities in comparison to when this was decided by their team or their school board. Qualitative studies can provide more insights into how specific UMTM components can differ across contexts or between different individuals.

6.7. Practical Implications

Based on the insights acquired throughout this dissertation, some practical implications for trainers and policy makers can be derived. The results underline that the UMTM is a suitable model to predict transfer of training and to examine personal and contextual antecedents and types of transfer motivation that can explain why transfer of training does or does not occur. As such, policy makers and trainers are recommended to use the UMTM questionnaire. They can use the questionnaire as a monitoring instrument to examine the transfer of their trainings and investigate what the effects are of modifying the training design and/or work context. This all can be measured with a relatively short questionnaire that can be administered in approximately five minutes. Trainers can use the questionnaire to examine for which aspects they can make changes to their trainings, for example adjusting the training design to the work practice of trainees. Policy makers can use the questionnaire to examine for which aspects they can make adjustments to the work environment of trainees, but also to evaluate whether the investments in employee training(s) lead to the desired application of training content in practice.

Policy makers and trainers can take several measures to enhance the application of training content in practice. This dissertation shows that almost all personal and contextual UMTM antecedents play a role in (indirectly) predicting types of transfer motivation, transfer intention and transfer of training. Trainers and policy makers are therefore recommended to aim at stimulating these antecedents. Literature provides directions about how the personal and contextual UMTM antecedents can be stimulated.

For example, to enhance the autonomy related antecedents, it is important that policy makers ensure that colleagues and supervisors of the trainee use non-controlling language, provide choices in when trainees can apply training content in practice and provide meaningful rationales about why applying training content could have utility (Jungert et al., 2020). Subjective norm could be stimulated by letting multiple colleagues and/or supervisors of the same organization take part in trainings. This can increase the likelihood that the content of the training aligns with the norms and values of the organization (Gilpin-Jackson & Bushe, 2007). Moreover,

it can foster a positive approach among colleagues towards the application of training content by trainees (Salamon et al., 2022a). Finally, feasibility appraisal can be improved by trainers through integrating a relapse prevention element in trainings. This can help trainees through identifying possible pitfalls in applying training content. Coming up with strategies to avoid these pitfalls and can prevent trainees from falling back in their old habits (Rahyuda et al., 2014). This can help trainees working around potential limitations in the available expertise among colleagues or available equipment to apply training content (Burke & Baldwin, 1999; Rahyuda et al., 2014) and stimulate sense of personal competence (i.e., self-efficacy; Pattni et al., 2007).

In enhancing these antecedents, it is important to take into account that individual trainees can have considerably different patterns in the different types of transfer motivation. Trainers and policy makers are therefore recommended to consider these differences in the design of trainings and work environments. To do so, policy makers could decide to send relatively homogeneous groups of employees to trainings. For example, chapter four shows that older trainees tend to experience lower feelings of feasibility and experience lower positive valences and a higher negative affective valence in comparison to younger trainees. For this specific group, it seems to be important that trainers put more emphasis on stimulating feelings of feasibility to eventually improve their transfer motivation and, subsequently, transfer of training. Based on such individual differences, trainings and work environments can be tailored more specifically to specific trainees.

Finally, also training characteristics (i.e., online vs in-person, mandatory vs voluntary, hard-skill vs soft-skill) should be considered as an influential component for transfer motivation and the effectivity of transfer of training interventions. As such, policy makers are recommended to consider these characteristics when they decide to invest in trainings. For example, if they decide that training attendance is mandatory, it is important to consider that this can have adverse consequences for transfer motivation. Additional measures might therefore be required to diminish the negative effects of mandatory training participation. Policy makers therefore could decide to grant trainees some freedom in their training participation (Salamon et al., 2021). For example, they could let trainees choose which specific training activities

they want to participate in or when they would like to participate (Gegenfurtner et al., 2016). This can diminish the negative effects of mandatory training participation (Salamon et al., 2021).

6.8. Conclusion

In conclusion, this dissertation has shown how (changes in) the personal and contextual antecedents of the UMTM together play a role in predicting transfer motivation. Moreover, different affective and cognitive types of transfer motivation have different effects on transfer intention and transfer of training, the influence of these types of motivation on transfer of training works differently for different individuals and depend on specific training characteristics.

As such, this dissertation unveils a complex interplay between different personal and contextual antecedents and between different types of transfer motivation in (indirectly) predicting transfer of training. This underlines that enhancing transfer of training is far from straightforward and remains a complex problem. Researchers and practitioners might need to shift their focus towards a more holistic approach to explore further how multiple personal and contextual antecedents and different types of transfer motivation together (indirectly) predict transfer of training. They are also invited to develop more intensive training intervention designs that can be used to enhance different antecedents and types of transfer motivation simultaneously. It is argued that the UMTM can serve as a valuable framework to investigate and evaluate transfer of training through such an approach. It is expected that such a holistic approach will yield more promising insights as to how transfer of training can be enhanced.

Finding effective ways to improve transfer of training is now more important than ever. Employees need to keep developing themselves faster than ever to cope with developments that occur at a higher rate than before (e.g., knowledge and technological developments) and organizations therefore invest increasingly more money in employee training. There is a pressing need to make employee trainings more effective, so they have the desired impact on practice and a sufficient return on investment. This dissertation provides insights regarding which components explain why transfer of training occurs and provides multiple recommendations that can be

used by trainers, policy makers and researchers to continue exploring how the transfer of training puzzle can be solved. Ultimately, this should lead to bridging the gap between training and work practice and developing trainings with high impact.