

# Mentoring that Matters

Understanding Effective Matching and the Role of  
Mentoring for Leadership Motivation



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Sophie Charlotte Drozdowski, M.Sc. Psych.

aus München

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**Erstgutachter:** Prof. Dr. Dieter Frey

**Zweitgutachterin:** Prof. Dr. Eva Lermer

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A truly great mentor is hard to find,  
difficult to part with,  
and impossible to forget.

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## **Deutsche Zusammenfassung**

**Mentoring: Effektive Zuordnung und  
die Rolle von Mentoring für Führungsmotivation**

### Deutsche Zusammenfassung

Mentoring hat sich in den letzten Jahren zu einem beliebten Instrument entwickelt, das von Organisationen eingesetzt wird, um die Entwicklung ihrer Mitglieder zu fördern sowie Nutzen auf organisationaler Ebene zu generieren (Eby et al., 2013). Unter Mentoring versteht man eine dyadische Entwicklungsbeziehung zwischen einem erfahreneren Mentor<sup>1</sup> und einem weniger erfahrenen Mentee. Hierbei bieten Mentoren den Mentees ihre Unterstützung und Beratung an, um diese in ihrer Entwicklung zu fördern (Kram, 1985). Die Unterstützung, die Mentees von ihren Mentoren erhalten, kann dabei mehrere Funktionen erfüllen (Dickson et al., 2014; Kram, 1985): Mentoren leisten *karrierebezogene* Unterstützung, indem sie ihren Mentees mit ihrem Wissen und Erfahrungen beratend zur Seite stehen, als Türöffner fungieren und als Fürsprecher auftreten. Sie bieten *psychosoziale* Unterstützung, indem sie Feedback geben, ein offenes Ohr für die Probleme und Sorgen ihrer Mentees haben, ihre Mentees in kritischen Phasen ermutigen und sie in ihren Zielen und Träumen bestärken. Zudem fungieren Mentoren als *Vorbilder*, indem sie ihren Mentees bestimmte Werte, Verhalten und Einstellungen mitgeben und einen konkreten Karriereweg vorleben. Qualitativ hochwertige Mentoring-Beziehungen bringen verschiedene Vorteile für Mentees mit sich, unter anderem in Bezug auf positive Arbeitseinstellungen, Arbeitsverhalten und eine erhöhte Karriereentwicklung (Eby et al., 2013).

Während sowohl die Forschung als auch die Praxis Mentoring als wertvolles Entwicklungsinstrument schätzen (Ghosh & Reio, 2013; Lorenzetti et al., 2019), wissen wir bisher erstaunlich wenig darüber, wie und unter welchen Bedingungen Mentoring wirkt (Joo et al., 2018). Die vorliegende Dissertation beleuchtet daher die psychologischen Prozesse, die erklären, warum Mentoring die Entwicklung der Mentees fördert, unter welchen Bedingungen dies geschieht, und wie man solch qualitativ hochwertige Mentoring-Beziehungen auf den Weg bringen kann. Damit vertieft die Arbeit das theoretische Verständnis von Mentoring als Entwicklungsbeziehung. Zudem

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<sup>1</sup> Aus Gründen der Lesbarkeit wurde im Text die männliche Form gewählt, nichtsdestoweniger beziehen sich alle Angaben auf Angehörige aller Geschlechter.

werden aus den empirischen Befunden praktische Handlungsempfehlungen für den optimalen Einsatz von Mentoring in Organisationen abgeleitet.

Die vorliegende Arbeit adressiert dabei zwei Kernfragen: Erstens, wie kann es uns gelingen, Mentoring-Beziehungen qualitativ hochwertig zu gestalten? Aus bisheriger Forschung wissen wir, dass Mentoring-Beziehungen ein qualitatives Spektrum von dysfunktional über durchschnittlich bis hin zu hochwertig umfassen (Ragins, 2016). Nur besonders hochwertige Mentoring-Beziehungen sind mit außergewöhnlichen Vorteilen für Mentees verbunden (Ragins, 2016). Aufbauend auf der Theorie des formalen Mentorings (Wanberg et al., 2003) und des Ähnlichkeit-Anziehungs-Paradigmas (engl.: *similarity-attraction-paradigm*; Byrne, 1971) untersucht der erste Teil dieser Arbeit, inwiefern eine gezielte Zuordnung der Mentoring-Partner die Beziehungsqualität, die erhaltene Unterstützung sowie die Entwicklung von Mentees fördern kann. Als Kriterium für die gezielte Zuordnung wird dabei die Wertekongruenz der Mentoring-Teilnehmer beleuchtet.

Weiterhin adressiert die Arbeit folgende Kernfrage: Welches Potential hat Mentoring, um die Führungsmotivation von Mentees zu stärken? Obwohl die Bedeutung von Mentoring-Beziehungen für zukünftige Führungskräfte immer wieder betont wurde (Day & Dragoni, 2015), liegt bisher wenig empirische Evidenz vor, wie und unter welchen Bedingungen Mentoring den Führungsnachwuchs entwickeln kann. Basierend auf Forschung zu Mentoring (Joo et al., 2018; Kram, 1985; Lester et al., 2011) sowie zu Möglichkeiten des Selbst (engl.: *possible selves*) in der Führungsliteratur (Braun & Lord, 2017; Lord & Brown, 2004; Markus & Nurius, 1986) untersuche ich im zweiten Teil dieser Arbeit, inwiefern Mentoring die Führungsmotivation von Mentees stärkt. Dabei beleuchte ich ein mentales Zukunftsbild von sich selbst als Führungsperson (engl.: *future leader self*) als psychologischen Prozess, der erhaltene Mentoring-Unterstützung in Führungsmotivation übersetzt. Zudem untersuche ich, inwiefern die Führungsmotivation des Mentors als Moderator dieses Prozesses fungiert.



**Teil I: Zuordnung nach Wertekongruenz für hochwertige Mentoring-Beziehungen**

[Engl. Titel: *Matching by Value Congruence for High-Quality Mentoring Relationships: Evidence from a Student Mentoring Program*]

Organisationen setzen formelle Mentoring-Programme ein, um die Entwicklung der Mentees zu fördern und sie bei der Bewältigung eines Entwicklungsschritts zu unterstützen. Tatsächlich zeigt jedoch die Mentoring-Forschung, dass formelle Mentoring-Beziehungen im Schnitt nicht die Qualität informeller Beziehungen erreichen, weniger Unterstützung geleistet wird und damit auch weniger Vorteile für Mentees einhergehen (Eby et al., 2013; Ghosh, 2014; Ragins & Cotton, 1999; Ragins et al., 2000). Woran liegt das und wie können wir formelle Mentoring-Beziehungen qualitativ hochwertiger gestalten? Des Rätsels Lösung liegt im Kernunterschied zwischen formellem und informellem Mentoring: der Zuordnung. Während informelle Mentoring-Beziehungen auf gegenseitiger Anziehung beruhen und auf natürliche Weise entstehen, werden formelle Mentoring-Tandems von einer dritten Partei im Rahmen eines formellen Mentoring-Programms zugeordnet (Wanberg et al., 2006). Aktuell ist nicht ausreichend geklärt, welche Kriterien und welche Art von Passung (Ähnlichkeit vs. Komplementarität) die vielversprechendsten Faktoren für eine erfolgreiche Zuordnung sind. Bisherige Forschung beleuchtete primär oberflächliche Merkmale, wie Geschlecht oder Hautfarbe (z.B. Ensher & Murphy, 1997; Morales et al., 2018; Turban et al., 2002). Obwohl die Zuordnung nach tieferliegenden Merkmalen (engl.: *deep-level criteria*; z. B. Werte, Persönlichkeit, Einstellungen) als wichtige Stellschraube identifiziert wurde, gibt es hier im Vergleich wenige empirische Studien (z.B. Egan, 2005; Menges, 2015; Mitchell et al., 2015). Tieferliegende Kriterien mimen die natürlich vorkommende Anziehung und das tiefe Verständnis, die informelle Mentoring-Beziehungen kennzeichnen, und sorgen für die richtige Chemie zwischen den Mentoring-Partnern (Menges, 2015). Dieser Teil der Arbeit folgt dem Aufruf von Mentoring-Forschern, tieferliegende Zuordnungs-Kriterien und ihren Einfluss auf die Mentoring-Beziehung näher zu beleuchten (Eby et al., 2013; Mitchell et al., 2015). Dabei gehe ich der Frage nach, inwiefern sich Werte als Zuordnungs-

Kriterium eignen, um die Beziehungsqualität, die erhaltene Mentoring-Unterstützung sowie die Entwicklung der Mentees zu fördern.

**Theoretischer Hintergrund und Hypothesen.** Die Theorie des formalen Mentorings (Wanberg et al., 2003) beschreibt den Mentoring-Prozess, von der initialen Zuordnung bis hin zu den langfristigen Auswirkungen. Den Autoren zufolge sind die Eigenschaften von Mentee und Mentor und insbesondere deren Zusammenspiel entscheidend für die sich entwickelnde Qualität der Mentoring-Beziehung und das Ausmaß an Unterstützung, das Mentees erhalten. Die Qualität und der Umfang der Unterstützung wiederum beeinflussen, inwiefern der Mentee profitiert und sich entwickelt. Was allerdings dieses optimale „Zusammenspiel“ der Teilnehmer-Charakteristika ausmacht, ist noch nicht umfassend geklärt. Das Ähnlichkeits-Anziehungs-Paradigma (Byrne, 1971) liefert das fehlende Puzzleteil: Das Paradigma postuliert, dass Ähnlichkeit im Gegensatz zu Komplementarität förderlich für qualitativ hochwertige Beziehungen ist.

Darauf aufbauend untersuche ich, welchen Effekt Wertekongruenz, d.h. Ähnlichkeit der Werte von Mentee und Mentor, auf die Mentoring-Beziehung hat. In der bisherigen Forschung wurden tieferliegende Kriterien häufig als ein übergreifendes Konstrukt gemessen, das Werte, Persönlichkeit und Einstellungen beinhaltet (Eby et al., 2013). Hierbei könnte es sich jedoch um mehrere relevante Zuordnungs-Kriterien handeln, die potentiell unterschiedliche Effekte nach sich ziehen. Ich fokussiere mich auf Werte, da sie als relativ beständige Leitlinien unseres Lebens fungieren, die unser Denken, Verhalten und unsere Entscheidungen beeinflussen, und damit auch unsere interpersonellen Beziehungen maßgeblich prägen (Schwartz, 1992). Das Werte-Modell von Schwartz (1992) unterscheidet dabei vier Werte-Dimensionen: Selbsttranszendenz (z. B. Altruismus), Offenheit für Wandel (z. B. Stimulation), Bewahrung des Bestehenden (z. B. Tradition), und Selbstverbesserung (z. B. Erfolg und Leistung).

Abgeleitet aus den vorgestellten Theorien gehe ich davon aus, dass Wertekongruenz auf den vier Werte-Dimensionen die Beziehungsqualität und die Vorbildfunktion des Mentors (als eine Funktion von Mentoring-Unterstützung) erhöht. Wertekongruenz fördert die gegenseitige

Anziehung, was die Aufnahme von Beziehungen erleichtert und die gegenseitige Sympathie und Bindung stärkt (Berscheid, 1994; Edwards & Cable, 2009). Zudem fungiert Wertkongruenz als ein Kriterium, ob der Mentor als ein passendes Vorbild angesehen wird oder nicht (Humberd & Rouse, 2016). Weiterhin postuliere ich, dass eine hohe Beziehungsqualität sowie die ausgeprägte Vorbildfunktion des Mentors die Entwicklung des Mentees stärken. Dabei beleuchte ich zwei relevante Konstrukte, die insbesondere im Studienkontext für Mentees wichtig sind: 1) persönliches Lernen und Wachstum durch die Mentoring-Beziehung und 2) die Bereitschaft, selbst als Mentor tätig zu werden. In qualitativ hochwertigem Mentoring können Mentees neue Fähigkeiten, Erfahrungen und Perspektiven gewinnen und somit als Person wachsen (Ragins, 2016). Auch die Vorbildfunktion des Mentors hat einen starken Lerneffekt, indem Mentees durch Beobachtung und Nachahmung von ihren Mentoren lernen können (Bandura, 1977). Zudem haben Menschen, die positive Erfahrungen mit früheren Mentoring-Beziehungen gemacht haben, und die mit dem Mentoring, das sie erhalten haben, zufrieden waren, eine positivere Einstellung zum Mentoring und sind eher bereit, sich als Mentor zu engagieren (Allen et al., 1997; Wanberg et al., 2003; Wang et al., 2009).

**Methode und Ergebnisse.** Das vorgeschlagene Modell wurde anhand einer längsschnittlichen Feldstudie im Rahmen eines studentischen Mentoring-Programms überprüft ( $N = 149$  Mentoring-Tandems, d.h. Mentees und Mentoren). Mithilfe eines Online-Fragebogens wurden vor Programmstart (T1) die Werte von Mentees und Mentoren erfasst. Nach ca. neun Monaten zu Programmende (T2) schätzten Mentees die Beziehungsqualität sowie die erhaltene Vorbildfunktion des Mentors ein. Drei Monate nach Programmende (T3) berichteten Mentees ihr persönliches Lernen und Wachstum sowie ihre Bereitschaft, selbst als Mentor tätig zu werden.

Die Ähnlichkeit in tieferliegenden Kriterien wurde in bisheriger Forschung häufig als wahrgenommene Ähnlichkeit gemessen, nicht als objektive Ähnlichkeit (z.B. Ensher et al., 2002; Lankau et al., 2005). Dies ist für Programmkoordinatoren jedoch wenig hilfreich, da diese die Teilnehmer vor Programmbeginn zuteilen müssen, d. h. bevor Eindrücke wie wahrgenommene Ähnlichkeit entstehen können. Aus diesem Grund und als wertvolle Ergänzung zum bisherigen

Vorgehen berechne ich die objektive Übereinstimmung in den Werten. Mithilfe von polynomialen Regressionen und Antwort-Oberflächen-Analysen (engl.: *response surface analyses*; Edwards, 2002; Edwards & Parry, 1993; Humberg et al., 2019) sowie Pfadanalysen wurde der Effekt von objektiver Wertekongruenz auf die abhängigen Variablen berechnet. Die Ergebnisse stützen vornehmlich das vorgeschlagene theoretische Modell. Jedoch zeigt sich, dass der positive Effekt von Wertekongruenz von der Werte-Dimension abhängt: Kongruenz in Selbstverbesserungs-Werten erhöht sowohl die Beziehungsqualität und die Vorbild-Unterstützung, als auch das persönliche Lernen und Wachstum sowie die Bereitschaft, sich als Mentor zu engagieren.

**Diskussion und Schlussfolgerung.** Diese Studie trägt zu unserem Verständnis bei, wie man qualitativ hochwertige Mentoring-Beziehungen auf den Weg bringen kann. Kongruenz in Selbstverbesserungs-Werten ist ein wirksames Zuordnungs-Kriterium, um die Beziehungsqualität, die Vorbildfunktion des Mentors, sowie die Entwicklung der Mentees (d. h. das persönliche Lernen und Wachstum sowie die Bereitschaft, als Mentor tätig zu werden) zu fördern. Diese Ergebnisse tragen zu unserem theoretischen Verständnis von hochwertigen Mentoring-Beziehungen bei und erweitern unser evidenzbasiertes Wissen über Zuordnungs-Kriterien im Mentoring. Zudem bietet die Studie Handlungsempfehlungen für die Praxis: Indem Programmkoordinatoren die Mentoring-Partner anhand von Ähnlichkeit in Selbstverbesserungs-Werten einander zuordnen, können sie die Qualität formeller Mentoring-Beziehungen maßgeblich verbessern.

## Teil II: Die Rolle von Mentoring zur Förderung der Führungsmotivation von Mentees

[Engl. Titel: *Motivated by your Future Self: How Mentoring fosters Protégés' Motivation to Lead*]

Mentoring wird häufig zur Entwicklung von motivierten Nachwuchsführungskräften eingesetzt (Development Dimensions International Inc. et al., 2018), jedoch wissen wir bisher wenig darüber, durch welchen psychologischen Prozess und unter welchen Bedingungen Mentoring zur Entwicklung einer Führungsmotivation beitragen kann. Führungsmotivation umfasst das intrinsische Interesse, Initiative zu zeigen und Verantwortung zu übernehmen, sowie die Bereitschaft andere zu führen (Chan & Drasgow, 2001). Frühere Forschungsarbeiten fokussierten primär auf die Rolle von

Mentoren im Transfer von Führungsfähigkeiten und -wissen (Chun et al., 2012; Sosik & Godshalk, 2000; Sosik et al., 2004). Für anspruchsvolle Führungsrollen, die hohe Motivation und Ausdauer voraussetzen, reicht es jedoch nicht nur zu wissen *wie* man führt. Man braucht einen Grund, *warum* man leidenschaftlich gerne die Führung übernimmt. Das Aufdecken kognitiver Komponenten, die eine Führungsmotivation antreiben, ist daher entscheidend (Guillén et al., 2015; Zaar et al., 2020), und wird in diesem Teil der Dissertation adressiert.

**Theoretischer Hintergrund und Hypothesen.** Forschung zu Möglichkeiten des Selbst (engl.: *possible selves*; Markus & Nurius, 1986; Strauss et al., 2012) beschreibt, wie Menschen mental in ihre Zukunft reisen und dabei mögliche Bilder ihrer Selbst kreieren – ideale Vorstellungen davon, wer sie werden könnten. Ich übertrage dieses Konzept auf den Führungskontext und definiere ein salientes *Zukunftsbild als Führungsperson* (engl.: *future leader self*) als ein greifbares, mentales Zukunftsbild von sich selbst als Führungsperson, das alle Ideale, Wünsche und Ziele in Bezug auf Führung umfasst. Solch ein Zukunftsbild als Führungsperson könnte ein Grund sein, warum Personen motiviert sind, Führung zu übernehmen. Ein greifbares Zukunftsbild als Führungsperson zeigt einen idealen Zielzustand auf, dem man sich annähern möchte, sensibilisiert für Situationen, in denen Führung übernommen werden kann und motiviert dazu, diese wahrzunehmen (Day et al., 2009; Lord & Brown, 2004; Markus & Wurf, 1987). Folglich nehme ich an, dass ein klares Zukunftsbild von sich selbst als Führungsperson dazu motiviert, Führung zu übernehmen.

Aufbauend auf der Mentoring- und Führungsliteratur (Braun & Lord, 2017; Joo et al., 2018; Kram, 1985; Lord & Brown, 2004) schlage ich ein salientes Zukunftsbild als Führungsperson als den kognitiven Mechanismus vor, der erklärt, warum die Unterstützung, die eine Person im Mentoring erhält, eine konkrete Führungsmotivation fördert. Ein erfahrener und wohlwollender Mentor, kann als Quelle von Inspiration und Bestätigung dienen, und uns darin bestärken, unsere Bestrebungen zu verfolgen (Braun & Lord, 2017; Ragins, 2016). Gerade Mentoring bietet den sicheren Rahmen, um über Führungsambitionen offen zu sprechen und mit möglichen zukünftigen Identitäten zu spielen (Muir, 2014; Ragins, 2012). Mentoring ermutigt darin, sich selbst als Führungsperson zu sehen,

indem positives Feedback die ersten Führungsversuche des Mentees bestärken (Day & Allen, 2004; DeRue & Ashford, 2010). Zudem fungieren Mentoren als Rollenvorbilder, die ein noch vages und unklares Bild von sich selbst als zukünftige Führungsperson mit konkretem Inhalt füllen und damit schärfen können (Kark, 2011; Ritter & Lord, 2007). Folglich postuliere ich, dass Mentoring-Unterstützung dazu beiträgt, ein Zukunftsbild als Führungsperson für Mentees greifbarer zu machen, was wiederum die Motivation erhöht, Führung zu übernehmen.

Gleichzeitig betont die Mentoring-Literatur die Relevanz des Mentors, da Charakteristika des Mentors beeinflussen, welche Art von Unterstützung geleistet wird (Chandler et al., 2011; Lapierre et al., 2012; Tonidandel et al., 2007). Analog postuliere ich, dass der Mentor hier eine entscheidende Rolle spielt: Nur wenn der Mentor selbst leidenschaftlich gerne führt, kann seine Unterstützung den Mentee dazu inspirieren, sich als zukünftige Führungsperson zu sehen (Lester et al., 2011). Auch die Themen, die im Rahmen der Mentoring-Beziehung diskutiert werden, werden sich vor allem dann um Führung drehen, wenn der Mentor selbst eine hohe Führungsmotivation besitzt.

Zusammenfassend nehme ich an, dass ein greifbares Zukunftsbild als Führungsperson den kognitiven Mechanismus darstellt, der erhaltene Mentoring-Unterstützung in Führungsmotivation übersetzt. Zudem nehme ich an, dass die Führungsmotivation des Mentors diesen Zusammenhang moderiert.

**Methode und Ergebnisse.** Das vorgeschlagene Modell wurde anhand von zwei Feldstudien in unterschiedlichen Kontexten überprüft. Studie 1 bedient sich einem querschnittlichen Design, in dem  $N = 150$  Mentoring-Tandems aus dem Arbeitskontext anhand eines Online-Fragebogens befragt wurden. Im Rahmen eines studentischen Mentoring-Programms wurde in Studie 2 eine längsschnittliche Online-Befragung mit drei Messzeitpunkten im Abstand von je vier bis fünf Monaten durchgeführt ( $N = 123$  Mentoring-Tandems). Die Salienz des Zukunftsbilds als Führungsperson der Mentees sowie die Führungsmotivation der Mentoren wurde vor Eintritt in das Programm erfasst (T1), die erhaltene Mentoring-Unterstützung zur Programmhälfte (T2) und erneut die Salienz des Zukunftsbilds als Führungsperson sowie die Führungsmotivation der Mentees zu Programmende

(T3). Die Ergebnisse beider Studien stützen unser vorgeschlagenes Modell und unterstreichen die moderierende Rolle des Mentors: Je mehr Mentoring-Unterstützung Mentees erhalten, desto klarer ist das Bild von sich selbst als zukünftige Führungsperson. Dieser Zusammenhang besteht allerdings nur dann, wenn Mentoren eine hohe Führungsmotivation innehaben. Das greifbare Zukunftsbild als Führungsperson der Mentees wiederum bestärkt ihre Führungsmotivation.

**Diskussion und Schlussfolgerung.** Anhand zweier Studien zeigt dieser Teil der Arbeit auf, warum und unter welchen Bedingungen Mentoring-Unterstützung die Führungsmotivation von Mentees fördert. Die Ergebnisse zeigen, dass Mentoring die Motivation von Mentees für Führung stärken kann, da das Zukunftsbild, das Mentees von sich selbst als Führungsperson haben, im Mentoring greifbar wird. Zudem zeigen die Ergebnisse, dass dieser Prozess von der Führungsmotivation des Mentors abhängt: Nur wenn Mentoren selbst gerne führen, sagt Mentoring indirekt – mediiert über ein klares mentales Zukunftsbild als Führungsperson – die Führungsmotivation von Mentees vorher. Dieses Forschungsprojekt trägt zu unserem theoretischen Verständnis der psychologischen Prozesse im Mentoring bei und bietet wichtige Handlungsempfehlungen für Organisationen, die den Führungsnachwuchs fördern wollen. Auf Grundlage der empirischen Befunde ist es empfehlenswert, Mentoren mit einer hohen Führungsmotivation auszuwählen. Ferner zeigen die Ergebnisse, dass Mentoring bereits Studierende für Führung begeistert. Gerade im Angesicht eines drohenden Führungskräftemangels (Day & Dragoni, 2015), ist es daher ratsam, Mentoring als wirksames Instrument zur Führungsentwicklung bereits im Studium zu etablieren und damit möglichst früh die Führungskräfte von morgen zu entwickeln.

**Abschließendes Fazit.** Die vorliegende Dissertation zeigt zum einen auf, wie eine effektive Zuordnung der Mentoring-Partner für hochwertiges Mentoring gelingen kann. Damit vertieft der erste Teil der Arbeit unser theoretisches Verständnis von qualitativ hochwertigen Mentoring-Beziehungen und erweitert unser evidenzbasiertes Wissen zu Zuordnungs-Kriterien. Zum anderen legt die Dissertation dar, welches Potential Mentoring hat, die intrinsische Führungsmotivation von Mentees zu fördern. Dabei deckt der zweite Teil der Arbeit einen wichtigen psychologischen

Wirkmechanismus auf, der erklärt, warum Mentoring die Führungsmotivation von Mentees stärkt und demonstriert die bedeutende Rolle, die dem Mentor dabei zukommt. Die empirischen Befunde bieten zudem wichtige praktische Implikationen für Organisationen, die Mentoring wirksam einsetzen möchten.



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## **Part I**

### **Matching by Value Congruence for High-Quality Mentoring Relationships: Evidence from a Student Mentoring Program**

*Note.* Preliminary theoretical work of the unpublished master's thesis of Sophie Drozdewski

"Matching for high quality mentoring relationships: Do values matter?" fed into this dissertation project.

### 1. Abstract

Formal mentoring programs are often implemented as a tool to support students' personal and professional development throughout their transition into higher education. However, formal mentoring relationships often fall short of their informal counterparts, as they more rarely lead to high-quality relationships and struggle to meet expectations. Mentoring research emphasizes the importance of deep-level matching criteria, such as personal values, to maximize relationship quality and mentoring support. In the present study, drawing on the formal mentoring framework and the similarity-attraction paradigm, we examined the extent to which actual congruence between mentor and protégé values predict protégés' perceived relationship quality and role modeling. Moreover, proximal outcomes (i.e., protégés' learning and growth as well as willingness to mentor) of the mentoring relationship were investigated. We tested the proposed mediation model in a longitudinal field study with three points of measurement within one year, using polynomial regression analyses and response surface analysis. The sample consisted of 149 mentor-protégé dyads. Results mainly supported the proposed theoretical model. However, the impact of actual value congruence on the mentoring process varied depending on the value dimension, revealing self-enhancement as a key dimension. The implications of these findings, especially for the matching process, are discussed.

*Keywords:* Formal mentoring; value congruence; relationship quality; role modeling

## 2. Introduction

Formal mentoring programs are often established to support individuals in mastering developmental challenges, such as the transition into university (Johnson, 2007). In these programs a more knowledgeable and experienced person – the mentor – offers support and guidance to a less experienced person – the protégé – for the purpose of facilitating the protégé’s development (Kram, 1985). Research on mentoring reveals a wide range of benefits (Allen et al., 2006; Allen et al., 2004; Eby et al., 2013). For university mentoring programs, empirical evidence shows that student mentoring entails positive effects on academic achievement and persistence, as well as professional and personal development (for an overview, see Lorenzetti et al., 2019). However, compared to self-initiated mentoring (i.e., informal mentoring), formal mentoring relationships tend to be associated with lower levels of support, struggle to achieve high relationship quality, and thus bring about less desired benefits (Eby et al., 2013; Ghosh, 2014; Ragins & Cotton, 1999; Ragins et al., 2000). What is the reason behind these shortcomings of formal mentoring programs, and how can we overcome them?

To answer these questions, we might observe the key difference between informal and formal mentoring: While informal mentoring tandems form naturally and are self-initiated through mutual attraction and liking, formal mentoring relationships are initiated and managed by a third party (Wanberg et al., 2006). In the matching process, program coordinators assign protégés to mentors with the aim to facilitate mentoring success (i.e., mentoring support received and relationship quality). However, they often struggle to mimic the naturally arising attraction and understanding found in informal mentoring relationships, which leads to dissatisfying results (Blake-Beard et al., 2007; Menges, 2015). Surprisingly, there is little scientific guidance which criteria and what kind of fit (e.g., congruence vs. complementarity) are the most promising factors for matching mentors and protégés in formal mentoring programs.

Existing research on matching criteria primarily focuses on similarity in surface-level characteristics, like gender or race (e.g., Ensher & Murphy, 1997; Morales et al., 2018; Noe, 1988;

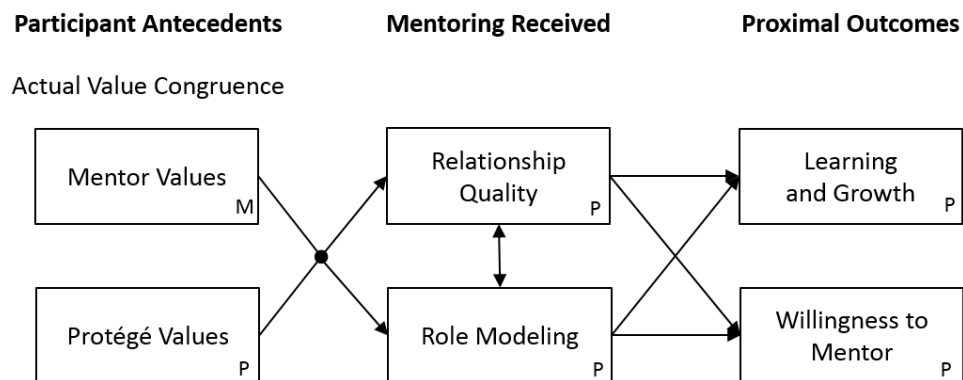
Turban et al., 2002). Comparatively few studies have investigated deep-level similarity (e.g., values, attitudes, beliefs, personality) (Egan, 2005; Godshalk & Sosik, 2003; Illies & Reiter-Palmon, 2018; Lankau et al., 2005; Menges, 2015; Mitchell et al., 2015). This is surprising, since two recent meta-analyses demonstrate that similarity in deep-level characteristics exerted stronger positive effects on received mentoring support and relationship quality than surface-level similarity, and thereby underlined their critical importance (Eby et al., 2013; Ghosh, 2014). Remarkably, Eby et al. (2013) found that deep-level similarity is particularly important in academic settings.

As dyadic fit in deep-level characteristics seems to be most relevant to fruitful mentoring relationships, and their thorough examination has been repeatedly called for by mentoring scholars (Eby et al., 2013; Menges, 2015), we aim with this study to broaden our understanding of the effects of deep-level similarity on the mentoring relationship. In this endeavor, we focus on values as one type of deep-level fit. Values are relatively enduring beliefs that act as guiding principles in our lives, and affect our thinking, behavior, and decisions (Rokeach, 1973; Schwartz, 1992). Thus, they influence our interpersonal relationships profoundly (Schwartz, 2012).

In the present study, we integrate the formal mentoring framework by Wanberg et al. (2003) and the similarity-attraction paradigm (Byrne, 1971) to investigate how actual congruence in mentor-protégé values relates to two crucial mentoring relationship characteristics: relationship quality and role modeling, which is a type of mentoring support (Dickson et al., 2014). In addition, we examine whether relationship quality and role modeling act as mediating mechanisms between actual value congruence and two objectives for formal mentoring programs: learning and growth as well as willingness to mentor. Figure 1 shows our conceptual model. We test the proposed theoretical model in the context of a formal peer mentoring program in higher education over the course of one study year.

**Figure 1**

*Proposed theoretical model within Wanberg et al.'s (2003) formal mentoring framework*



*Note.* The term “Values” refers to the four value dimensions (i.e., self-transcendence, openness to change, conservation, and self-enhancement). M = Mentor rated. P = Protégé rated.

We seek to make three important contributions to the literature: First, we contribute to the formal mentoring framework by Wanberg et al. (2003) by identifying specific matching characteristics (i.e., actual value fit) and the type of this characteristic fit (i.e., congruence) for high-quality mentoring relationships. The formal mentoring framework guides our theorizing in its emphasis on the importance of the interplay of the mentor’s and protégé’s characteristics on mentoring received as well as proximal (e.g., learning and growth) and more distal (e.g., career advancement) outcomes. However, the interplay of participant characteristics has largely remained a black box – it is still not clear what constitutes a good match in characteristics. By integrating the similarity-attraction paradigm (Byrne, 1971), we aim to investigate the underlying psychological process for mentor-protégé matching. The paradigm suggests that similarity (i.e., congruence) in contrast to other types of fit (e.g., complementarity) is conducive toward high-quality relationships. For this reason, we focus on the importance of actual value congruence on crucial mentoring relationship characteristics and outcomes.

Second, taking the complexity of personal values into account, we differentiate between four different value dimensions (Schwartz, 1992). Above and beyond mentoring research, this adds



to the person-environment fit literature (Edwards & Cable, 2009; Finegan, 2000; Ostroff et al., 2005; Van Vianen et al., 2004). Deep-level similarity has often been conceptualized and measured as a compound construct that includes values, personality, beliefs, and attitudes (Eby et al., 2013). However, investigating these constructs separately is important to understand their specific influence on individuals' lives (Schwartz, 2012).

Third, we operationalize and measure value congruence as the objective agreement of mentor and protégé on four value dimensions. In previous mentoring research, deep-level similarity has often been operationalized as the subjective perception of similarity, not actual similarity (e.g., Ensher et al., 2002; Ensher & Murphy, 1997; Lankau et al., 2005). This is of less value for program coordinators, as they have to match mentoring participants based on information that is available before the dyads meet (Menges, 2015). Therefore, we employ state-of-science statistical methods (polynomial regression with response surface analysis) in a longitudinal study to track the effects of actual value congruence on mentoring received and proximal outcomes. This overcomes the limitations of perceived similarity in providing useful information for mentoring scholars and practitioners on how to match for high-quality mentoring relationships.

### **3. Theoretical Background and Hypotheses Development**

The formal mentoring framework by Wanberg et al. (2003) elucidates the entire mentoring process from initial matching to distal outcomes. According to the authors, protégé and mentor characteristics are crucial for the evolving mentoring relationship and affect both the quality of the mentoring relationship and how much mentoring support is received by the protégé. The authors emphasize that "the interaction of the characteristics of two individuals is particularly critical in determining the characteristics of the relationship." (Wanberg et al., 2003, p. 100). The quality of the relationship and mentoring received, then, determines the extent to which a protégé benefits and develops (proximal outcomes). Due to the critical importance of participant characteristics and their impact on the mentoring relationship, we center our theorizing on this part of the conceptual framework.

### 3.1 Value Congruence in Mentor and Protégé Values

Values are defined as relatively enduring beliefs that act as guiding principles in our lives (Rokeach, 1973; Schwartz, 1992). They are a compass for what is good and right, express what is important to us, and represent what we are striving for. Values have a profound impact on every aspect of our lives, including interpersonal relationships (Schwartz, 1992). In his seminal theory of basic human values, Schwartz (1992; 2012) identified four core dimensions of values: a) *self-transcendence*: values that emphasize collective interests (e.g., altruism), b) *openness to change*: values that emphasize flexibility (e.g., stimulation), c) *conservation*: values that emphasize stability (e.g., tradition), and d) *self-enhancement*: values that emphasize individual interests (e.g., achievement).

The value of value congruence has been documented in a large body of person-environment fit literature. The importance of congruence between the values of employees and organizations for work attitudes, job performance, occupational health, and job retention has been especially studied (Edwards & Cable, 2009; Hoffman et al., 2011; Kristof-Brown et al., 2005; Verquer et al., 2003). Furthermore, congruence in person-supervisor values has been shown to have positive outcomes on work relationships (Brown & Treviño, 2009; Markham et al., 2010; Meglino et al., 1991; Rich et al., 2010). However, research investigating the effects of actual value congruence in mentoring is scarce (Eby et al., 2013). Within the mentoring context, we define actual value congruence as the actual deep-level similarity in values held by the protégé and the mentor. For example, mentor and protégé are congruent in self-enhancement values when they agree on the importance of self-development and similarly strive for self-improvement and success. Thus, we propose value congruence as an important matching criterion.

### 3.2 The Effect of Value Congruence on Mentoring Received

As stated by the formal mentoring framework (Wanberg et al., 2003), the interplay of participant characteristics shapes the mentoring relationship and its outcomes. We focus on two distinct processes that have been shown to be crucial for mentoring relationships to succeed: (1)

relationship quality and (2) role modeling (Eby et al., 2013), as one type of mentoring support. Relationship quality and mentoring support are acknowledged as two conceptually distinct constructs in the mentoring literature (Eby et al., 2013). While relationship quality refers to the satisfaction with the relationship and relational depth, the perception of mentoring support involves the type and amount of support received (Allen & Eby, 2003).

Drawing on the similarity-attraction paradigm (Byrne, 1971), we suggest that actual value congruence will lead to greater quality of the mentoring relationship. The similarity-attraction paradigm (Byrne, 1971) posits that individuals are attracted to and like similar others because they affirm and validate their beliefs, attitudes, and behavior. Thereby, it underlines that congruence, in contrast to other types of fit, should increase relationship quality. Value congruence nurtures mutual attraction, which eases relationship initiation and reinforces mutual liking and commitment (Berscheid, 1994; Edwards & Cable, 2009). Further, having shared values establishes a common frame which facilitates the exchange of information (Edwards & Cable, 2009). Indeed, individuals with aligned values share some aspects of information processing, resulting in smoother communication with each other (Kalliath et al., 1999). In addition, when values of two individuals are aligned, they are likely to better understand and predict each other's way of thinking and actions. Thus, value congruence increases interpersonal predictability and trust, and reduces misunderstandings and conflict, as the partners converge in opinions and behavioral expectations (Edwards & Cable, 2009; Kalliath et al., 1999). In fact, mismatches in values are the most common negative mentoring experience in dysfunctional relationships, which can lead to negative reactions to the relationship (Eby et al., 2010; Eby et al., 2000). In sum, these arguments suggest that value congruence nurtures harmony and cooperation within the dyad, which entails close mentoring bonds and a rewarding mentoring experience.

*Hypothesis 1a.* Actual congruence in mentor and protégé values is positively related to protégé perceptions of relationship quality.

Furthermore, we propose value congruence to be conducive of protégé perceptions of role modeling. Extensive research on mentoring functions (for an overview, see Dickson et al., 2014) recognizes three distinct types of mentoring support: career support (e.g., coaching, exposure and visibility), psychosocial support (e.g., counseling and encouragement), and role modeling. Role modeling refers to the mentor acting as a good example for the protégé, which involves modeling attitudes and behaviors as well as exhibiting a career path that the protégé would like to follow. In this study, we focus on role modeling as one dimension of mentoring functions for two reasons: First, from a theoretical standpoint, a mentor can only be seen as a role model for the protégé when they share a common understanding of what is important in life (Kram, 1985). Value congruence thus functions as a necessary requirement for role modeling, while other mentoring functions do not rely as much on value congruence. For example, it is possible that a mentor can introduce an important business contact to the protégé (i.e., giving career support) or encourage the protégé in his/her work (i.e., giving psychosocial support) without sharing the same values. Therefore, when focusing on values, role modeling is particularly relevant. Second, from an empirical standpoint, meta-analytic evidence suggests that role modeling is the strongest predictor among the mentoring functions for mentoring outcomes (Dickson et al., 2014).

Again drawing on the similarity-attraction paradigm (Byrne, 1971), we suggest that similar values attract the protégé to the mentor and lay the foundation for identification processes which are inherent to role modeling (Gibson, 2004; Marstand et al., 2018; Ragins & Cotton, 1999). The mentor might represent someone who the protégé wants to be in the future (Humberd & Rouse, 2016). Thus, value congruence between mentor and protégé functions as a criterion in evaluating the other's behavior and integrity as an idealized future self and thus whether the other gets chosen as a role model or not (Lee et al., 2017). Since students typically face the challenge of finding their (professional) identity and a career path, identification with a mentor is especially critical in the university stage (Eby et al., 2013). High value congruence therefore is likely to enhance the perception of the mentor as a fitting role model. In addition, previous research has shown that the

more alike the role model is to the observer, the more the observer is drawn to the role model, resulting in a greater learning effect (Bandura, 1977). Indeed, overall perceived deep-level similarity has been consistently linked to protégés' reports of role modeling perceptions (Eby et al., 2013; Lankau et al., 2005; Ortiz-Walters & Gilson, 2005).

*Hypothesis 1b.* Actual congruence in mentor and protégé values is positively related to protégé perceptions of role modeling.

As empirical research has found strong associations between relationship quality and role modeling (Eby et al., 2013; Lyons & Perrewé, 2014; Ragins & Cotton, 1999), we assume a reciprocal relationship between the two constructs. Basic principles of positive reinforcement underscore this notion (Skinner, 1958).

*Hypothesis 2.* Relationship quality and role modeling are positively associated.

### **3.3 The Effect of Mentoring Received on Protégé's Personal and Professional Learning and Growth**

The extent of mentoring received in the relationship determines proximal effects on the protégé (Wanberg et al., 2003). A wide range of outcomes has been examined in relation to mentoring experiences (Eby et al., 2013). In the realm of formal mentoring in higher education, two outcomes seem particularly relevant: protégés' learning and growth as well as their willingness to mentor in the future. While learning and growth can be seen as a type of in-role behavior, willingness to mentor can be conceptualized as a form of extra-role behavior that extends beyond what is formally expected from university students (McManus & Russell, 1997). We assume that high-quality mentoring relationships have the potential to foster not only in-role but extra-role behavior in students.

More specifically, we argue that relationship quality will foster protégés' learning and growth (Kram, 1985). Mentoring is an idiosyncratic relationship in which unique learning opportunities are offered as mentors pass on their knowledge and expertise (Eby et al., 2007). However, Ragins (2016) noted how mentoring relationships can vary greatly in effectiveness. In high-quality relationships, protégés can gain new skills, experiences, and perspectives while growing as a

person (Ragins, 2016). The reach of this development can extend well beyond the mere academic context, as discussing personal problems and worries may encourage protégés to try out new ways of thinking and behavior in their personal lives as well. In line with this reasoning, in their study on relationship effectiveness for mentors, Allen and Eby (2003) found that relationship quality was positively related to learning in the mentorship. Therefore, we suggest that relationship quality will positively affect protégés' personal and professional learning and growth, with the mentor providing advice and guidance on academic and personal issues tailored to the protégé's needs.

*Hypothesis 3a.* Relationship quality is positively related to protégé's personal and professional learning and growth.

Moreover, we propose that protégé perceptions of role modeling will nurture learning and growth. Social learning theory (Bandura, 1977) suggests that role modeling produces a powerful learning effect, with the protégé acquiring new behaviors, skills, and beliefs through observation and imitation of the mentor. By exposing protégés to new experiences and opening their eyes to different possibilities and opportunities, mentors act as role models to enhance protégés' personal and professional growth (Eby et al., 2008). In fact, there is meta-analytic evidence that perceived psychosocial support (including the facet role modeling) leads to greater protégé reports of learning (Eby et al., 2013).

*Hypothesis 3b.* Role modeling is positively related to protégé's personal and professional learning and growth.

Following our rationale, actual value congruence within the mentoring dyad should heighten perceptions of relationship quality and role modeling (Byrne, 1971; Edwards & Cable, 2009), which then should positively affect protégé's learning and growth (Bandura, 1977; Ragins, 2016).

*Hypothesis 4.* Actual congruence in mentor and protégé values has an indirect effect on protégé's personal and professional learning and growth, through a) relationship quality and b) role modeling.

### **3.4 The Effect of Mentoring Received on Protégé's Willingness to Mentor**

In addition to matching, another major task for program coordinators is to recruit future volunteer mentors, since they are crucial for the survival and success of the mentoring program. The literature on willingness to mentor is scarce, especially when compared to well-examined in-role outcomes like performance and career advancement (Allen, 2003; Ghosh & Reio, 2013). Therefore, we follow the call to further examine this type of extra-role behavior (Janssen et al., 2014). Extant mentoring research distinguishes between three categories of individual-level factors that predict the motivation to mentor: a) demographic variables, b) personality variables, and c) previous mentoring experience (Allen, Poteet, et al., 1997). Studies addressing demographic and personality variables provide insight into which types of mentors are more likely to provide assistance in general (Janssen et al., 2014). However, most important for program coordinators are malleable variables through which the willingness to mentor can be encouraged, in this case the mentoring experience. By matching thoughtfully, program coordinators can influence how positive the mentoring experience will be (Wanberg et al., 2003). Beyond matching, previous experience with mentoring seems to be in fact the most influential factor in developing the mentors of tomorrow (Allen, 2003; Allen, Poteet, et al., 1997; Ragins & Cotton, 1993).

Therefore, we suggest that relationship quality and received role modeling support, as dimensions of a positive mentoring experience, are conducive to protégés' willingness to mentor. Research suggests that people who had positive experiences with previous mentoring relationships and who were satisfied with the mentoring they received hold more positive views of being a mentor and generally are more willing to mentor others (Allen, Poteet, et al., 1997; Allen, Russell, et al., 1997; Wanberg et al., 2003; Wang et al., 2009). This might be because satisfied protégés recognize the worth of mentoring, whether through the benefits they have personally received or the benefits for the organization they might observe (Janssen et al., 2014). High-quality experiences as a protégé are also linked to lower perceived costs of mentoring and an intention to establish and maintain positive and fulfilling mentoring relationships in the future (Allen, Poteet, et al., 1997;

Janssen et al., 2014; Ragins & Scandura, 1999). The satisfaction with prior mentoring thus seems to be applied to new relationships, and positive expectations of being a mentor thereby unfold (Walker & Yip, 2018). In addition, Eby et al. (2010) found that from the mentor's perspective, bad mentoring experiences are associated with less willingness to mentor others in the future. It is likely that this proposition is true for the protégé's perspective as well.

*Hypothesis 5a.* Relationship quality is positively related to protégé's willingness to mentor.

Furthermore, extant literature suggests that being a protégé prepares individuals to engage as mentors (Wanberg et al., 2003). Receiving mentoring support equips protégés with first-hand knowledge of mentoring and a mental schema of how mentoring is done, which can be applied to new mentoring relationships (Allen, Poteet, et al., 1997; Ragins & Verbos, 2007). Also, protégés can gain mentoring abilities and skills by vicariously learning from their mentors (Bandura, 1977). By modeling relevant behaviors, mentors can be tangible examples for protégés who will try to imitate and exhibit the mentor's behavior and put their mentoring experience into practice (Wanberg et al., 2003). Protégés also acquire a realistic preview of what the mentor role comprises and develop positive expectations of future mentoring roles (Ragins & Scandura, 1999; Wanberg et al., 2003). Thus, role modeling can bolster students' confidence and self-efficacious beliefs that they themselves can be successful mentors (Bandura, 1977; Caprara et al., 2012). We believe that protégés' opportunities to observe and understand their mentors' role will nurture their motivation to serve as a mentor.

*Hypothesis 5b.* Role modeling is positively related to protégé's willingness to mentor.

Collectively, this line of reasoning suggests that shared values within the mentoring dyad foster a positive mentoring experience by increasing relationship quality and role modeling (Byrne, 1971; Kalliath et al., 1999), which then promotes protégés' willingness to mentor (Allen, Poteet, et al., 1997).



*Hypothesis 6.* Actual congruence in mentor and protégé values has an indirect effect on protégé willingness to mentor, through the mediators a) relationship quality and b) role modeling.

## **4. Method**

### **4.1 Sample and Procedure**

This longitudinal study was part of the overall scientific monitoring of a formal peer mentoring program at a large German university. In this program, more experienced students (i.e., mentors) support freshmen (i.e., protégés) throughout their first academic year at university. Protégés are assigned to mentors primarily based on their major. Protégés can also indicate a desired gender of their mentor as well as special needs for assistance (e.g., disability, migration background, or a non-academic family background). Mentors are formally trained and prepared for their role before they guide their peers voluntarily.

We collected data at three points of measurement throughout the mentoring process: Before the program start (T1), we assessed mentors' and protégés' values. Importantly, to allow maximal variance of value fit, this data was not used to match mentoring dyads. At the end of the program (T2), about nine months later, we assessed protégés' perceptions of relationship quality and perceived role modeling. Three months later (T3), we assessed protégés' learning and growth as well as willingness to mentor.

All 529 mentors completed the first questionnaire (T1) (100%). A total of 217 protégés out of 1,089 protégés (19.93%) completed all three questionnaires (T1-3). We screened the dataset for low-quality data and excluded participants accordingly (failing an attention check, stating low effort in open comments, German skills below level B2 [(DeSimone et al., 2015)]). Within the program mentors had the option to provide mentoring to more than one protégé. When this was the case, we randomly selected one of the protégés to obtain mentoring dyads only (this only affected 3.76% of the total sample;  $n = 41$ ). After excluding surveys with missing data and matching the completed

questionnaires using codes, the final sample comprised 149 mentor-protégé dyads. All analyses are based on this final sample.

Of the protégés, 74.5% were female, 85.9% were of German nationality, and the mean age was 20.23 years ( $SD = 5.33$ ). Of the mentors, 73.8% were female, 88.6% were of German nationality, and the mean age was 21.79 years ( $SD = 2.56$ ). Of the mentors, 12.1% were graduate students. Surface level similarity in gender and nationality of the mentoring dyads was dummy coded (0 = dissimilar, 1 = similar). Of the mentoring dyads, 73.8% ( $n = 110$ ) were of the same gender, and 77.2% ( $n = 115$ ) were of the same nationality. Protégés reported an average of 32.66 ( $SD = 34.03$ ) interactions over the course of the program (i.e., times of contact via phone or mail, and number of meetings).

## 4.2 Measures

The study was conducted in German. Therefore, all measures were translated into German using the double-blinded back-translation approach suggested by Brislin (1970).

### ***Protégé and Mentor Values (T1)***

Mentors and protégés independently rated the importance of specific values as guiding principles in their life on the scale by Brown and Treviño (2009). This scale is based on the circumplex model of human values by Schwartz (1992) and covers not only universal values, but was extended to the work context. It assesses 18 values on four dimensions: self-transcendence (e.g., altruism), openness to change (e.g., creativity), conservation (e.g., tradition), and self-enhancement (e.g., ambition). Respondents rated each value including a short description (e.g., altruism: caring, assisting others) on a 7-point scale ranging from  $-1 = \textit{opposed to my values}$ ,  $0 = \textit{not at all important}$ , to  $5 = \textit{of supreme importance}$ . For protégé values, Cronbach's alpha was .81 for self-transcendence values, .72 for openness to change values, .70 for conservation values, and .61 for self-enhancement values. To address the mediocre reliability of the self-enhancement subscale, we inspected item-total correlations. Based on this, we excluded the item "Taking initiative (enterprising, inventiveness)", because it correlated less than .30 (item-total correlation:  $r = .26$ ) with other items

of this subscale (Field, 2017). Moreover, from a conceptual perspective, enterprise and inventiveness are not necessarily needed as a student, and the concept of enterprise may not have been clear to the students, considering their age and life experience. Therefore, by excluding this item we aimed at maximizing content validity given the sample we applied (John & Soto, 2007). After the exclusion, Cronbach's alpha for self-enhancement values increased to an acceptable value of .72.

For mentor values, Cronbach's alpha was .73 for self-transcendence values, .77 for openness to change values, .70 for conservation values, and .58 for self-enhancement values. Again, the item "Taking initiative (enterprising, inventiveness)" did not fit the other items of the self-enhancement subscale (item-total correlation:  $r = .21$ ). Therefore, this item was removed, increasing Cronbach's alpha to .74.

### ***Relationship Quality (T2)***

Protégés reported the relationship quality with their mentor on the five-item relationship quality scale by Allen and Eby (2003) using a five-point response format (1 = *strongly disagree* to 5 = *strongly agree*). A sample item is "My mentor and I enjoy a high-quality relationship." Cronbach's alpha was .94.

### ***Role Modeling (T2)***

Protégés indicated the extent of role modeling support they received from their mentors by responding to the three-item role model subscale of Ragins and McFarlin (1990) Mentor Role Instrument (MRI). Role modeling was measured using a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. A sample item is "My mentor represents who I want to be." Cronbach's alpha was .92.

### ***Personal and Professional Learning and Growth (T3)***

We measured protégés' personal and professional learning and growth with six items based on the relationship learning scale developed by Allen and Eby (2003). As the original 6-item scale was developed to measure learning and growth in mentoring relationships from a mentor's perspective, we adapted three items to target the protégé's perspective. A sample item is "My

mentor shared a lot of information with me that helped my professional/study development.” We added three items – to compensate for the exclusion of three items of the original scale which did not apply to protégés at all – to fully capture the protégé’s personal and professional learning and growth: “My mentor shared a lot of information with me that helped my personal development;” “My mentor contributed to my personal development and maturing as a person;” and “My mentor contributed to my professional/study development.” All items were assessed on a five-point response scale (1 = *strongly disagree* to 5 = *strongly agree*). Cronbach’s alpha was .93.

### ***Willingness to Mentor (T3)***

Protégés reported their intention to become a mentor on Ragins and Scandura (1999) willingness to mentor scale, which was measured using a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. A sample item is “I have no desire to be a mentor” (reverse-scored). Cronbach’s alpha was .95.

### ***Control Variables***

Based on mentoring theory and previous research (Allen & Eby, 2003; Eby et al., 2013; Lankau et al., 2005; Ragins & Cotton, 1999; Turban et al., 2002) we controlled for interaction frequency (times of contact and number of meetings), as this factor has the potential to influence interpersonal assessments. Surface-level similarity in gender and nationality were also considered as control variables to rule out the effects of demographic similarity (e.g., Eby et al., 2013; Ensher et al., 2002). Similarity of gender and nationality were not significantly related to any of the dependent variables in our model, while interaction frequency was. For this reason (Becker et al., 2016; Carlson & Wu, 2012), we excluded similarity of gender and nationality but included interaction frequency as a control variable in subsequent analyses. Table 1 presents means, standard deviations, correlations, and reliability estimates (Cronbach’s  $\alpha$ ) of the study measures.

**Table 1***Means, Standard Deviations, Correlations, and Reliability Estimates for Study Variables*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Protégé Self-Transcendence	5.93	0.79	(.81)									
2. Protégé Openness to Change	5.26	0.83	.33**	(.72)								
3. Protégé Conservation	5.09	0.85	.36**	.07	(.71)							
4. Protégé Self-Enhancement	5.79	1.04	.07	.14	.42**	(.72)						
5. Mentor Self-Transcendence	5.92	0.67	.34**	.07	.19*	.11	(.73)					
6. Mentor Openness to Change	5.37	0.84	.15	.07	.04	.05	.48**	(.77)				
7. Mentor Conservation	4.86	0.84	.11	.09	.12	.18*	.31**	.10	(.70)			
8. Mentor Self-Enhancement	5.81	0.90	-.08	.12	.03	.23**	.20*	.26**	.41**	(.74)		
9. Relationship Quality	3.78	1.01	.18*	.12	.10	.04	.13	.19*	.06	.17*	(.93)	
10. Role Modeling	4.35	1.57	.15	.04	.08	.07	.17*	.20*	.07	.20*	.71**	(.92)
11. Learning and Growth	3.19	1.09	.12	.03	.01	-.09	.05	.22**	.03	.12	.68**	.51**
12. Willingness to Mentor	4.86	1.87	.13	.14	-.06	.14	.11	.16*	.02	.13	.23**	.30**
13. Interaction Frequency	32.66	34.03	.10	.05	.01	-.03	.04	.15	.05	.05	.37**	.34**
14. Similarity in Gender	0.74	0.44	.06	.05	.11	.08	.11	-.05	.04	-.06	-.09	.02
15. Similarity in Nationality	0.77	0.42	.07	-.09	.07	.01	-.13	-.12	-.09	-.17*	.14	.10

*Note.* *N* = 149. Reliability estimates (Cronbach's  $\alpha$ ) are reported along the diagonal.

\*  $p < .05$ . \*\*  $p < .01$ .

**Table 1 (continued)**

Variable	11	12	13	14	15
1. Protégé Self-Transcendence					
2. Protégé Openness to Change					
3. Protégé Conservation					
4. Protégé Self-Enhancement					
5. Mentor Self-Transcendence					
6. Mentor Openness to Change					
7. Mentor Conservation					
8. Mentor Self-Enhancement					
9. Relationship quality					
10. Role modeling					
11. Learning and growth	(.93)				
12. Willingness to Mentor	.17*	(.95)			
13. Interaction Frequency	.34**	.09	-		
14. Similarity in Gender	-.11	-.04	.00	-	
15. Similarity in Nationality	-.01	.08	.03	.04	-

### **4.3 Analytical Strategy**

We tested our proposed model in three steps (Edwards & Cable, 2009): First, we estimated regression coefficients for the main effects in a path analytic framework utilizing the block variable approach (Cable & Edwards, 2004; Pedhazur, 1982). Second, to determine whether these fit effects constitute congruence effects, we applied polynomial regression with response surface methodology (Edwards, 2002; Edwards & Parry, 1993; Humberg et al., 2019). Third, we tested the indirect effects using bias-corrected 95%-confidence intervals in a path analytic framework with block variables (Cable & Edwards, 2004). Details regarding these procedures are presented in the following.

#### ***Path Analysis using the Block Variable Approach***

The hypotheses were tested in a path analytic framework using Maximum Likelihood estimation in Mplus 8.4. Following the approach proposed by Cable and Edwards (2004), we created block variables from the polynomial regression terms in Equations 1 and 2 (see below) to obtain path coefficients for the deep-level fit variables. This procedure summarizes the effects of the five polynomial terms  $P$ ,  $M$ ,  $P^2$ ,  $PM$ , and  $M^2$  in a single path coefficient, without affecting the explained variance of the deep-level fit variables compared to the original equation nor influencing other predictors in the model (Heise, 1972; Igra, 1979). The polynomial terms are then replaced by the block variable in the regression equation.

Our proposed theoretical model did not hypothesize different effects for the four value dimensions. Actual value congruence was determined as the agreement of the mentor-protégé dyad on the importance on each of the four value dimensions. Therefore, we calculated the actual deep-level fit for each value dimension separately. To control alpha error inflation, all probability levels were corrected using the sequential Bonferroni procedure (Seaman et al., 1991).

#### ***Polynomial Regression and Response Surface Analysis***

We used polynomial regression with response surface analysis (RSA) to examine the effect of actual fit in values. This procedure overcomes the conceptual and methodological limitations of difference scores as an index of similarity, and tests non-linear effects necessary for congruence

hypotheses (Edwards & Parry, 1993). These non-linear effects are tested using polynomial regression by graphing the results in a three-dimensional space, which creates the response surface (Edwards & Parry, 1993). To conduct these analyses, we used the RSA package (Schönbrodt, 2017) for R (R Core Team, 2019).

First, the measures of protégé and mentor values were scale-centered by subtracting the midpoint of the scale following recommendations by Edwards and Parry (1993). Next, we estimated the following polynomial regression equations:

$$RQ = b_{RQ0} + b_{RQ1}P + b_{RQ2}M + b_{RQ3}P^2 + b_{RQ4}PM + b_{RQ5}M^2 + e_{RQ} \quad (1),$$

$$RM = b_{RM0} + b_{RM1}P + b_{RM2}M + b_{RM3}P^2 + b_{RM4}PM + b_{RM5}M^2 + e_{RM} \quad (2),$$

where RQ represents relationship quality, RM represents role modeling, P and M are protégé and mentor values, and the polynomials  $P^2$ , PM and  $M^2$  represent protégé-mentor actual fit in values.

Results from Equations 1 and 2 were used to calculate four surface test values ( $a_1$  to  $a_4$ ) in order to determine whether the coefficients signified a value congruence effect. These coefficients were also used to plot the response surface. Protégé and mentor values are displayed on perpendicular horizontal axes and the dependent variable on the vertical axis (Edwards & Cable, 2009). The response surface is described by two reference lines: the line of congruence (LoC), along which protégé and mentor values are aligned ( $P = M$ ), and the line of incongruence (LoIC), along which protégé and mentor values differ ( $P = -M$ ) (Humberg et al., 2019). The slopes of the LoC ( $a_1$ ) and the LoIC ( $a_3$ ) indicate linear additive effects, whereas their curvatures ( $a_2$  and  $a_4$ , respectively) indicate non-linear effects.

Three key features of the response surface indicate a congruence effect (Humberg et al., 2019): First, the ridge of the surface should run along the congruence line and therefore should not be rotated away (first principal axis has an intercept of 0 and a slope of 1;  $p_{10} \approx 0$ ,  $p_{11} \approx 1$ ; see Edwards (2002)); otherwise, combinations of the predictor variables other than congruence will maximize the outcome variable. Second, the surface is curved downward along the LoIC (significant



negative  $a_4$  coefficient), such that the dependent variable decreases when protégé and mentor values differ from each other in either direction (Edwards & Cable, 2009; Humberg et al., 2019).

Third, the slope of the LoIC should be maximized at point (0,0), so that the parabola can fall to both sides of the point, and therefore the outcome variable decreases when incongruence of protégé and mentor values increases ( $a_3$  coefficient must be non-significant) (Humberg et al., 2019).

### ***Test of Indirect Effects***

In order to test our mediation Hypotheses 4 and 6, we estimated regression coefficients in a path analytic framework using Maximum Likelihood estimation, again utilizing the block variable approach (Cable & Edwards, 2004). The path coefficients obtained from this procedure for the indirect effects were tested using bias-corrected 95%-confidence intervals built from estimates based on 10,000 bootstrap samples (Cable & Edwards, 2004).

## **5. Results**

Table 2 shows detailed results of the hypothesized path model and the corresponding standardized path estimates.

**Hypothesis 1a** proposed a congruence effect of protégé and mentor values on relationship quality. First, we took a look at the path analytic results to determine whether there was a fit effect at all. Protégé-mentor fit in openness to change values ( $\beta = .18, p = .012$ ), conservation values ( $\beta = .12, p = .034$ ), and self-enhancement values ( $\beta = .20, p = .015$ ) were positively related to relationship quality. The effect of protégé-mentor fit in self-transcendence values ( $\beta = .16, p = .066$ ) was marginally significant. Since all forms of fit (similarity, complementarity or other types of fit) are considered when conducting path analysis, we then examined whether the three conditions for congruence were met (i.e., [1]  $p_{10} \approx 0, p_{11} \approx 1$ ; [2] significant negative  $a_4$  coefficient; [3]  $a_3$  coefficient must be non-significant). There was no support for a congruence effect in self-transcendence, openness to change, and conservation values (see Table 3). For self-enhancement values, all three conditions for a congruence effect were met:  $p_{10} \approx 0, p_{11} \approx 1$ ;  $a_4 = -0.40, p = .077$ ;  $a_3 = -0.36, p = .326$ , although it is noted that the second condition was marginally significant. Figure 2 illustrates how

protégé-mentor fit in self-enhancement values related to relationship quality. Thus, Hypothesis 1a received partial support.

**Table 2**

*Path Analytic Results from the Estimated Model*

Path	<i>b</i>	<i>SE</i>	$\beta$
Direct effects			
Self-Transcendence Values → Relationship Quality	0.85 <sup>†</sup>	0.41	.16 <sup>†</sup>
Openness to Change Values → Relationship Quality	0.75*	0.26	.18*
Conservation Values → Relationship Quality	0.71*	0.34	.12*
Self-Enhancement Values → Relationship Quality	0.79*	0.28	.20*
Self-Transcendence Values → Role Modeling	0.88 <sup>†</sup>	0.39	.19 <sup>†</sup>
Openness to Change Values → Role Modeling	0.82***	0.19	.25***
Conservation Values → Role Modeling	0.67	0.43	.10
Self-Enhancement → Role Modeling	0.86*	0.39	.19*
Relationship Quality → Learning and Growth	0.69***	0.07	.64***
Role Modeling → Learning and Growth	0.31***	0.06	.45***
Relationship Quality → Willingness to Mentor	0.42*	0.18	.23*
Role Modeling → Willingness to Mentor	0.37***	0.09	.31***
Path	<i>b</i>	95% CI	
		<i>LL</i>	<i>UL</i>
Indirect effects			
Self-Transcendence Values → Relationship Quality → Learning and Growth	0.59	0.05	1.18
Openness to Change Values → Relationship Quality → Learning and Growth	0.51	0.15	0.89
Conservation Values → Relationship Quality → Learning and Growth	0.49	0.05	1.01
Self-Enhancement Values → Relationship Quality → Learning and Growth	0.55	0.19	0.98
Self-Transcendence Values → Relationship Quality → Willingness to Mentor	0.33	0.02	0.98
Openness to Change Values → Relationship Quality → Willingness to Mentor	0.25	0.00	0.69
Conservation Values → Relationship Quality → Willingness to Mentor	0.31	0.02	0.90
Self-Enhancement Values → Relationship Quality → Willingness to Mentor	0.32	0.06	0.80
Self-Transcendence Values → Role Modeling → Learning and Growth	0.28	0.05	0.57
Openness to Change Values → Role Modeling → Learning and Growth	0.25	0.12	0.42
Conservation Values → Role Modeling → Learning and Growth	0.21	-0.04	0.52
Self-Enhancement Values → Role Modeling → Learning and Growth	0.27	0.06	0.56
Self-Transcendence Values → Role Modeling → Willingness to Mentor	0.39	0.05	0.69
Openness to Change Values → Role Modeling → Willingness to Mentor	0.24	0.07	0.49
Conservation Values → Role Modeling → Willingness to Mentor	0.25	-0.03	0.67
Self-Enhancement Values → Role Modeling → Willingness to Mentor	0.30	0.07	0.73
R <sup>2</sup>			
Relationship Quality	0.23***		
Role Modeling	0.22***		
Learning and Growth	0.48***		
Willingness to Mentor	0.16**		

*Note.* *N* = 149. Under the “Path” column, the term “Values” refers to the block variables for actual fit

in values. CI = Confidence Interval. LL = Lower limit. UL = Upper limit.

<sup>†</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Table 3***Tests of Conditions for Value Congruence Effects on Relationship Quality and Role Modeling*

Path	Value dimension			
	Self-Transcendence	Openness to Change	Conservation	Self-Enhancement
Values → Relationship Quality	1 – 3	1 – 3	– – 3	1 2† 3
Values → Role Modeling	1 – 3	1 – 3	1 – 3	1 2* 3

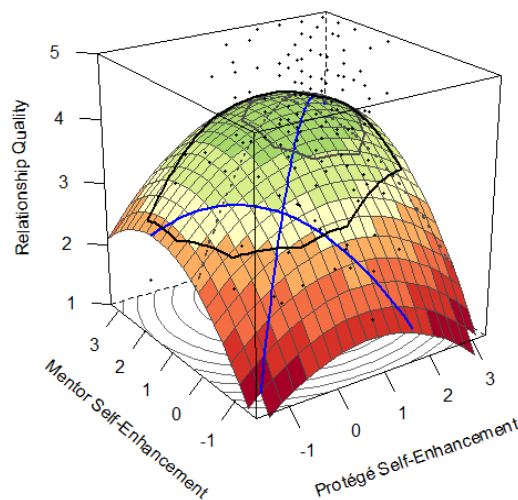
*Note.*  $N = 149$ . Under the “Path” column, the term “Values” refers to the five quadratic terms for

actual fit in values. Table entries indicate which of the three conditions for a value congruence effect were met. Condition 1 indicates whether the ridge of the response surface runs along the congruence line. Condition 2 states that the surface is curved downward along the incongruence line (inverted U-Shape). Condition 3 designates that the vertex of the incongruence line is at point (0,0).

†  $p < .10$ . \*  $p < .05$ .

**Figure 2**

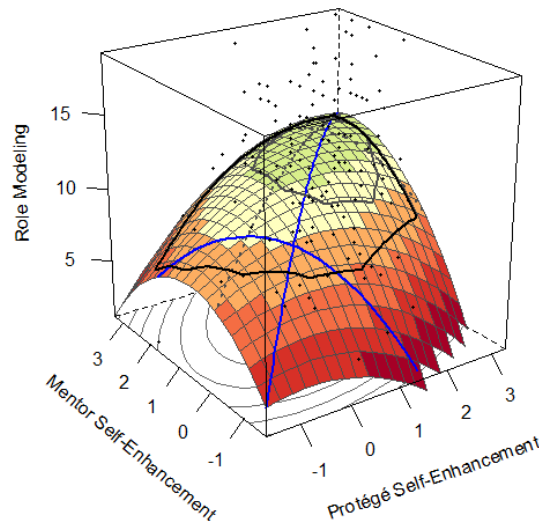
*Response surface for the fit effect in protégé-mentor self-enhancement values on relationship quality*



**Hypothesis 1b** predicted a congruence effect of protégé and mentor values on role modeling. Protégé-mentor fit in openness to change ( $\beta = .25, p < .001$ ), and self-enhancement values ( $\beta = .19, p = .048$ ) were positively related to role modeling. Fit in self-transcendence values ( $\beta = .19, p = .063$ ) was marginally significant. Protégé-mentor fit in conservation values ( $\beta = .10, p = .112$ ) was not significantly related to role modeling. Next, we examined the three response surface conditions for congruence. Results did not support a congruence effect in self-transcendence, conservation, and openness to change values. However, all three conditions were met for a congruence effect of self-enhancement values on role modeling:  $p_{10} \approx 0, p_{11} \approx 1; a_4 = -2.17, p = .036; a_3 = -1.91, p = .274$ . Figure 3 shows how protégé-mentor fit in self-enhancement values related to role modeling. In summary, Hypothesis 1b was partially supported.

**Figure 3**

*Response surface for the fit effect in protégé-mentor self-enhancement values on role modeling*



**Hypothesis 2** suggested a positive association between relationship quality and role modeling. Indeed, relationship quality and role modeling were significantly related ( $r = .66, p < .001$ ). Thus, Hypothesis 2 was supported.

**Hypotheses 3a and 3b** assumed that a) relationship quality and b) role modeling are positively related to the protégé's learning and growth. Path analytic results revealed that relationship quality ( $\beta = .64, p < .001$ ) as well as role modeling ( $\beta = .45, p < .001$ ) were positively related to learning and growth. Therefore, Hypotheses 3a and 3b were supported.

**Hypotheses 4a and 4b** posited a positive indirect effect of value congruence on learning and growth through a) relationship quality and b) role modeling. Since we found only congruence effects for the self-enhancement value dimension, we focused on the indirect effects of this dimension.<sup>1</sup> Results of path analysis indicated positive indirect effects of self-enhancement value congruence on learning and growth through relationship quality ( $b = .55, CI [.19;.98]$ ) and role modeling ( $b = .27, CI [.06;.56]$ ). Thus, Hypotheses 4a and 4b were supported for the self-enhancement value dimension.

**Hypotheses 5a and 5b** indicated that a) relationship quality and b) role modeling are positively related to the protégé's willingness to mentor. Results indicate a positive effect of relationship quality ( $\beta = .23, p = .017$ ) and role modeling ( $\beta = .31, p < .001$ ) on willingness to mentor. Hence, Hypotheses 5a and 5b were supported.

**Hypotheses 6a and 6b** assumed a positive indirect effect of value congruence on willingness to mentor through a) relationship quality and b) role modeling. Again, we focused on the indirect effects of the self-enhancement value dimension.<sup>2</sup> Indeed, we found positive indirect effects of self-enhancement value congruence on willingness to mentor through relationship quality ( $b = .32, CI$

<sup>1</sup> Results did support indirect effects of all value dimensions on learning and growth. In detail, through the mediator relationship quality we found indirect effects of self-transcendence ( $b = .59, CI [.05;1.18]$ ), openness to change ( $b = .51, CI [.15;.89]$ ), and conservation values ( $b = .49, CI [.05;1.01]$ ). Through the mediator role modeling, we could also detect indirect effects of self-transcendence ( $b = .28, CI [.05;.57]$ ), and openness to change values ( $b = .25, CI [.12;.42]$ ), but not of conservation values ( $b = .21, CI [-.038;.52]$ ). However, for these value dimensions no congruence effect was found, and hence they were not regarded further.

<sup>2</sup> Results showed that there were indirect effects of all value dimensions on willingness to mentor. Precisely, through the mediator relationship quality there were also indirect effects of self-transcendence ( $b = .33, CI [.02;.97]$ ), openness to change ( $b = .25, CI [.01;.69]$ ), and conservation values ( $b = .31, CI [.03;.90]$ ), as well. Through the mediator role modeling, we could also find indirect effects of self-transcendence ( $b = .30, CI [.05;.69]$ ), and openness to change values ( $b = .24, CI [.07;.49]$ ), but not of conservation values ( $b = .25, CI [-.03;.67]$ ). Again, for these value dimensions we could not detect congruence effects, and hence they were not regarded further.

[.06;.80]) and role modeling ( $b = .30$ , CI [.07;.73]) in our data. Therefore, Hypotheses 6a and 6b were supported for the self-enhancement value dimension.

## 6. Discussion

Despite its importance for the matching process, research on actual dyadic fit in deep-level characteristics is scarce in the mentoring literature (Menges, 2015; Mitchell et al., 2015). To address this relevant research gap, the purpose of this study was to examine whether and how actual congruence of protégé and mentor values affects the mentoring relationship and its outcomes. Drawing on the formal mentoring framework by Wanberg et al. (2003) and the similarity-attraction paradigm (Byrne, 1971), we developed and tested a theoretical model linking actual value congruence on the four dimensions by Schwartz (1992) to the protégé's personal and professional learning and growth, as well as willingness to mentor in the future, through relationship quality and role modeling. Results from our longitudinal field study in a formal student mentoring program at a large German university mainly supported the proposed theoretical model. However, the impact of actual fit in values varied depending on the value dimension: Congruence in self-enhancement values emerged as the central antecedent not only for mentoring received, but also for in- and extra-role behavior of the protégés.

### 6.1 Theoretical Implications

This study contributes to the existing literature in at least three important ways. First, by integrating the formal mentoring framework (Wanberg et al., 2003) and the similarity-attraction paradigm (Byrne, 1971), we took a closer look at the underlying psychological process facilitating high-quality mentoring relationships: actual value congruence. In doing so, we expand the formal mentoring framework (Wanberg et al., 2003) by answering the question of how participant characteristics interact to result in high-quality mentoring relationships: While we did not find evidence for complementarity as a mechanism, congruence in self-enhancement values was demonstrated as effective.

Second, in previous research, deep-level similarity is consistently related to mentoring received, but is often measured as a compound construct comprising similarity in values, personality, attitudes, and beliefs (Eby et al., 2013), which could represent several significant matching criteria. In our study, we dismantled this broad construct and focused on values, which guide our everyday thinking, behavior, and decisions (Schwartz, 1992). Specifically, the findings of this study revealed that actual congruence in self-enhancement values (e.g., success and ambition) had positive effects on protégé ratings of relationship quality and role modeling. Self-enhancement is not only the predominant topic in the formal mentoring program we studied (i.e., how to achieve success at university); it taps right into the meaning of mentoring, which is concerned with self-enhancement and self-development per se (Kram, 1985). Therefore, it makes sense that this value dimension is key to ensure high-quality mentoring. Our findings suggest that when protégés and mentors differ in their self-enhancement values (e.g., one is very hard-working and ambitious, while the other is not), mentoring quality and role modeling suffer. Specifically, as shown in Figures 2 and 3, perceptions of relationship quality and role modeling were highest when protégé-mentor self-enhancement values were both moderate to high, underlining the fact that pronounced self-enhancement values are especially important for mentoring quality. Taken together, these findings are consistent with the positive effects of value congruence reported in person-supervisor dyads (Markham et al., 2010; Rich et al., 2010). Thus, this study adds evidence of actual value congruence effects to the person-environment fit literature in the hitherto neglected mentoring context.

Beyond that, we also found positive indirect effects in accordance with our hypotheses: Matching for similarity in self-enhancement values significantly increases the extent to which protégés can learn and grow from the mentoring relationship and, at the same time, motivates protégés to become mentors themselves through the mentoring they received. In this case, mentoring is not only effective in offering extraordinary learning opportunities to students (i.e., in-role behavior), but also forms the mentors of tomorrow (i.e., extra-role behavior), which is especially important for programs that rely on voluntary engagement (Terrion & Leonard, 2010).

Third, with data collected from both the mentor and protégé and by applying state-of-the-science statistical methods (polynomial regression analysis with RSA), we operationalized value congruence objectively, and not as a one-sided and subjective assessment of only one person in the relationship. We thereby add to value congruence research (Edwards & Cable, 2009; Kristof-Brown et al., 2005) and answer the call of mentoring scholars to study the interplay of personal characteristics of both protégé and mentor (Eby et al., 2013). In addition, we aimed for a more comprehensive view of value congruence, specifically a fine-grained picture of how matching in four different value dimensions relates to high-quality mentoring. In fact, we could not find congruence effects for the other value dimensions besides self-enhancement (i.e., self-transcendence, openness to change, and conservation values). Topics that tap on altruism, experimentation, or tradition may not be as salient (or relevant) in the student mentoring context we studied. Conversely, self-transcendence or conservation values might be much more relevant in other contexts (e.g. non-profit organizations or community contexts). However, as self-development is often the major goal when entering a mentoring relationship (Ragins, 2016), self-enhancement values seem to be more important than other values in determining the quality of the relationship as well as the amount of support and benefits received. These findings contribute to a growing body of research which notices that value congruence effects are much more nuanced than previously assumed (Edwards & Cable, 2009; Kalliath et al., 1999; Ostroff et al., 2005; Van Vianen et al., 2004; Van Vuuren et al., 2007). Thus, this study highlights the importance of recognizing that values are multidimensional and that each value dimension might affect relationships differently depending on the context.

## **6.2 Practical Implications**

Our study gives valuable insights into how program coordinators of formal mentoring programs can refine the matching process, foster high-quality relationships, and thereby maximize benefits for protégés. By matching for self-enhancement values, program coordinators can create the right chemistry between mentors and protégé right from the start, which not only facilitates high relationship quality and promotes role modeling but has positive effects on learning and growth as



well as willingness to mentor. Program coordinators are thereby able to foster the next line of (volunteer) mentors by setting the course for a rewarding mentoring experience. In addition, mentoring participants should be made aware of how value congruence can affect mentoring relationships and should be informed about the content and unique dynamics of high-quality mentoring relationships. Sharing what is important in life and staying true to one's values will help foster a meaningful connection and a strong working alliance within the mentoring dyad.

### **6.3 Limitations and Future Research**

The findings of this study must be interpreted in light of the following limitations: First, this study employed a student sample participating in a formal peer mentoring program, which may limit the generalizability of our findings. As we were concerned with formal mentoring in higher education, the choice of this sample seems appropriate. In fact, we applied a field study design with real mentoring dyads, which infers external validity. Moreover, as the theoretical frameworks we applied are not limited to specific contexts, our findings may still be informative to other settings (Byrne, 1971; Wanberg et al., 2003). However, the literature could further profit from replications in a workplace sample or a sample from a different mentoring context (e.g., youth mentoring).

Second, the sample size was limited to the mentoring program we studied, which might have restricted the power of our data. However, our sample size seems adequate when considering the elaborate study design of three measurement points in time, which impedes retention of study participants, as well as considering the sample sizes of comparable studies (Menges, 2015; Mitchell et al., 2015). Moreover, for the fact that power might be restricted in our analyses and our estimation was conservative by applying Bonferroni corrections, the effects we found are remarkable. Thus, we suggest future studies with larger samples are needed to potentially uncover the relevance of additional value dimensions as promising matching criteria.

Third, we were obliged to make a selection concerning the outcomes we investigated in this study. The proximal outcomes we chose are highly relevant, because not only do they represent desired benefits of mentoring programs, they also indicate the transformative nature of high-quality

mentoring relationships (Ragins, 2016). It would also be fruitful in future research to explore distal outcomes as well. For example, can congruence in mentor and protégé values be linked to the development of students' professional identity? Other distal outcomes noted in the formal mentoring framework (e.g., mentor outcomes) and how they relate to mentor-protégé value congruence would also be exciting to investigate (Wanberg et al., 2003). These are questions to be explored by future research.

## **7. Conclusion**

This study was concerned with the question of whether values are an applicable matching criterion for forming mentor-protégé-dyads in formal mentoring programs, with the goal of facilitating mentoring relationships and positive development. We can conclude from our findings that matching for self-enhancement values is indeed beneficial for high-quality mentoring relationships and positive protégé development. Thus, matching for self-enhancement value congruence seems to be a promising way to offset the disadvantages of formal mentoring programs (Ghosh, 2014; Ragins & Cotton, 1999; Ragins et al., 2000). This insight is particularly relevant for program coordinators interested in designing evidence-based matching processes that enable high-quality formal mentoring relationships.

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## **Part II**

### **Motivated by your Future Self:**

#### **How Mentoring fosters Protégés' Motivation to Lead**

### 1. Abstract

While the importance of mentoring in building and supporting future leaders has been underlined, empirical evidence on why and under which conditions mentoring fosters protégés' intrinsic motivation to enact leadership lacks behind. Drawing on leadership and mentoring research we suggest that mentoring support promotes protégés' affective motivation to lead by heightening their salient images of themselves as future leaders. We propose mentors' affective motivation to lead as a boundary condition in this process. Only when mentors themselves are passionate about leadership, mentoring support will increase protégés' salience of their future leader selves, which in turn strengthens their affective motivation to lead. We tested our moderated mediation model with a cross-sectional study with  $N = 150$  employee mentoring dyads in the work context, and further with a three-wave longitudinal study with  $N = 123$  student mentoring dyads in the university context. Findings across both studies supported our proposed model and highlight the role of mentors' affective motivation to lead: Only when mentors were highly motivated to lead (moderator), the positive relationship between mentoring support and protégés' affective motivation to lead through their salient future leader selves (mediator) was present. These findings contribute to leadership and mentoring literature as they reveal the construct of "future leader selves" as an important mechanism why people in mentoring relationships may have an intrinsic motivation to engage in leadership. We further derive practical implications for organizations that aim to foster the next line of leaders.

*Keywords:* mentoring; future leader selves; motivation to lead



## 2. Introduction

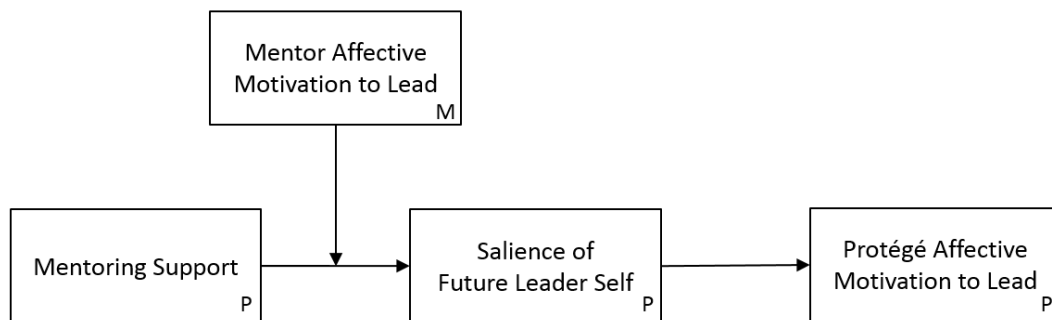
The ability to mentally travel in time is inherent to human beings (Roberts, 2002). When traveling towards the future, individuals create possible future selves – images of who they could become that include their future ideals, goals, and aspirations (Markus & Nurius, 1986; Markus & Wurf, 1987). Individuals hold multiple future selves in relation to different domains (Markus & Nurius, 1986). In the work domain, future selves drive proactive career behaviors, especially when they are salient, that is clear and easily accessible in the mind (Strauss et al., 2012).

Leadership scholars have pointed to the crucial role of future selves for leadership motivation and behavior (Avolio & Vogelgesang, 2011; Epitropaki et al., 2017; Lord & Brown, 2004; Van Knippenberg et al., 2004). Only if individuals hold salient images of themselves as leaders they are motivated to pursue and enact leadership, as it represents a goal they can strive for (Day & Sin, 2011; DeRue & Ashford, 2010). In line with this reasoning, we apply research on future selves (Markus & Nurius, 1986; Strauss et al., 2012) to leadership and define future leader selves as individuals' cognitive representation of themselves as (potential) leaders. These future leader selves are positive possible selves that are unique to leadership. They encompass the ideals, goals, and aspirations an individual holds in relation to leadership and may translate into the intrinsic and genuine motivation to lead others, when they are salient (Chan & Drasgow, 2001).

While in general the impact of possible selves on motivation is well established (Stam et al., 2014; Strauss et al., 2012), we know far less about how possible future selves become salient. It has been argued that future selves' salience can rise through social interactions with significant others (Ibarra, 1999; Muir, 2014; Strauss et al., 2012). Such a significant other is a benevolent mentor, who interacts with the protégé for the purpose of nurturing the protégés' development (Kram, 1985). In mentoring, protégés receive various functions of mentoring support, including career, psychosocial, and role modeling support (Dickson et al., 2014; Kram, 1985). When protégés discuss their hopes and possible career paths with the mentor, and receive validation, they may unravel their possible

selves and further pursue their aspirations (Braun & Lord, 2017). As mentoring provides a safe haven from which protégés can explore and play with future identities as well as discuss their leadership aspirations (Ragins, 2012), mentoring support might increase the salience of future leader selves in protégés. Also, mentors might serve as exemplary role models on which protégés can build their future leader selves, further heightening their salience (Lord & Brown, 2004). Indeed, leadership research has acknowledged mentoring relationships as a critical support for future leaders (e.g., Day & Dragoni, 2015; Lord & Brown, 2004). Likewise, mentoring literature suggested leadership aspirations as possible outcomes of mentoring (Fullick-Jagiela et al., 2015; Ragins, 2016). However, whether leadership is a relevant topic in the mentoring sessions may depend to a great extent on the mentor's motivation to lead. Only when mentors enjoy leading they might provide the kind of mentoring support that brings out future leader selves in protégés.

With this study, we draw on future selves in leadership (Braun & Lord, 2017; Lord & Brown, 2004; Markus & Nurius, 1986) and mentoring literature (Joo et al., 2018; Kram, 1985; Lester et al., 2011) to develop and test a theoretical model that proposes salient future leader selves as a cognitive bridge between the mentoring support an individual receives and his or her motivation to lead. However, we do not assume that mentoring support alone is pivotal in eliciting salient future leader selves, but that this relation depends on mentors themselves: Only if mentors are passionate about leadership, mentoring support might inspire protégés to see themselves as future leaders. The proposed theoretical model is visualized in Figure 1.

**Figure 1***Proposed theoretical model*

*Note.* M = Mentor rated. P = Protégé rated.

Our research makes several contributions. First, although the relevance of mentoring for leader development has been acknowledged (Joo et al., 2018; Lester et al., 2011), empirical evidence on the cognitive mechanisms underlying it is scarce. A number of scholars stressed the role of mentors in transferring leadership skills and knowledge (Blass & Ferris, 2007; Chun et al., 2012; Sosik & Godshalk, 2000; Sosik et al., 2004). Others considered the impact of mentoring on changes in leadership self-efficacy perceptions (Joo et al., 2018; Lester et al., 2011; Machida & Schaubroeck, 2011). However, knowing *how* to lead is not enough for leaders to be successful and persistent in the leadership role (Guillén et al., 2015). It seems critical to understand *why* someone wants to lead and to uncover the underlying cognitive components that drive leadership, like a future leader self (Guillén et al., 2015; Zaar et al., 2020). We argue that mentoring heightens the salience of future leader selves and hence nurtures the motivation to lead. Thereby, we propose future leader selves as the cognitive mechanism that explains why people feel passionate about leadership in mentoring relationships.

Second, with this study we follow the call of various scholars (Ibarra, 1999; Miscenko & Day, 2016; Van Knippenberg, 2018) to understand what renders future selves (i.e., future leader selves) accessible. By uncovering mentoring as a social antecedent of future leader selves we advance

research on possible selves in general (Markus & Nurius, 1986; Strauss et al., 2012), and particularly on future selves in leadership (Braun & Lord, 2017; Lord & Brown, 2004). Beyond that, we uncover how characteristics of mentors and the mentoring support they provide interact to elicit future leader selves in individuals. How future selves become salient has largely remained unexplored. Although social interactions with significant others have been theoretically discussed as relevant precursors for salient future selves (Braun & Lord, 2017), empirical evidence lacks behind. Understanding how an individual's future leader self evolves and becomes an integral part of the self is crucial to understand internal drivers for leadership and leader development. To close this research gap, we draw on ideas from the leadership literature (Braun & Lord, 2017) which suggest that people encounter information in social interactions with significant others that make salient future leader selves more likely.

Third, by exploring the extent to which mentoring heightens the salience of future leader selves and as a result leadership motivation, we contribute to mentoring research and practice (Allen et al., 2006; Eby et al., 2013; Joo et al., 2018; Ragins, 2016). Building motivated future leaders is one of the major challenges organizations face and mentoring is often implemented as a tool to nurture leader development (Day et al., 2009). While the emphasis that practitioners place on mentoring is considerably strong (Development Dimensions International Inc. et al., 2018), we know surprisingly little about the specific contribution mentoring makes to individuals' leadership motivation (Joo et al., 2018). Since organizations invest a lot of effort and resources in mentoring programs in order to develop their next line of leaders (O'Leonard & Krider, 2014), it seems imperative to advance our understanding of how mentoring is conducive to the motivation to lead, with the aim to present evidence-based insights for mentoring theory and practice.

### 3. Theoretical Background and Hypotheses Development

#### 3.1 Future Leader Selves

The self-concept individuals have is a cognitive structure that contains relevant knowledge about themselves in relation to specific domains (Epitropaki et al., 2017; Oyserman & Markus, 1998). Self-knowledge is not only rooted in the past (i.e., who I have been) and present (i.e., who I currently am), but further extends into the future (i.e., possible selves that visualize who I could become). As opposed to components of the self-concept that are relatively stable (e.g., gender identity, ethnicity), future selves are dynamic and their importance can change over time (Braun & Lord, 2017; Lord & Hall, 2005; Markus & Nurius, 1986). Mental time travel to these possible future selves provides individuals with significant goals to pursue and reduces uncertainty, as individuals try to strategically align their lives to increase the likelihood of favorable outcomes (Baumeister et al., 2016; Seligman et al., 2013). Although possible selves can be of both positive (ideal self that one strives for) as well as negative valence (feared self that one wants to avoid), we focus on *positive* rather than negative future selves. Negative or feared selves have been suggested to be rather unstable, relatively rare as well as less effective in regulating behavior towards a specific direction (Carver & Scheier, 1990).

As a form of possible selves that are unique to the leadership domain, we introduce future leader selves as the cognitive representation of oneself as a leader, comprising one's future hopes and aspirations in relation to leadership. Leadership is generally defined as a process of taking influence on others in order to achieve a common goal (Day & Harrison, 2007; Lord & Brown, 2004). Developing self-views as a leader has been vastly acknowledged as critical for leader development (Day & Harrison, 2007; DeRue & Ashford, 2010; Lord & Brown, 2004) and as a central component of an identity as a leader (Epitropaki et al., 2017). The rise of a future leader self in the self-concept is regarded as an early sign for an individual's development towards leadership (Lord & Hall, 2005). Although salient future leader selves are important for motivation (Day et al., 2009; Lord & Brown,

2004; Markus & Nurius, 1986), they are distinct from leadership motivation for the following reasons. First, while leadership motivation involves the specific pursuit of leadership tasks and responsibilities (Chan & Drasgow, 2001), future leader selves represent relatively broad desirable end states an individual envisions in relation to leadership. These end-states encompass a variety of goals, hopes, and aspirations (Markus & Wurf, 1987; Strauss et al., 2012). Second, leadership motivation describes the affective and intrinsic passion to take on leadership (Badura et al., 2019), whereas the importance of future leader selves to the individual refers to the cognitive activation of the self as a leader in the self-concept (Strauss et al., 2012). Lastly, while leadership motivation is situated in the present (Chan & Drasgow, 2001), future leader selves are future-focused possibilities.

We want to highlight a relevant feature of future leader selves: their salience. The *salience* of a future leader self refers to the extent of activation the future self has in one's self-concept (Strauss et al., 2012). Some parts of the self-concept are central to the self, clear and easy to imagine, whereas other parts are more peripheral and need stronger impulses to be activated (Lord & Brown, 2004; Markus & Nurius, 1986). Salient selves are of high importance to the individual and have direct effects on related goal-setting, motivation and behavior (Strauss et al., 2012). It is important to understand this salience as *malleable*. In the future, there are multiple possible selves that exist in parallel. Which of them becomes salient depends on encountered information. Especially meaningful relationships and social interactions can have a major impact on the future selves that are salient in the short-run, and pursued in the long-run (Braun & Lord, 2017). In that sense, as others share their experiences, opinions, or expectations in relation to a specific future self, one adapts, revises or develops this future self. In a nutshell, future leader selves and their salience can be changed and develop over time, as people interact with significant others. Since one's future ideals and goals are intensively discussed in mentoring relationships (Humberd & Rouse, 2016), we regard mentoring support as a relevant precursor for salient future leader selves.

### 3.2 The Effect of Mentoring Support on Future Leader Selves

Mentoring is a developmental relationship between a more experienced mentor and a less experienced protégé, where the mentor offers support and guidance to the protégé with the purpose of fostering the protégé's development (Kram, 1983, 1985). Mentoring support encompasses various functions, such as career support (including coaching, exposure and visibility, protection, and challenging assignments), psychosocial support (including acceptance, feedback, encouragement, confirmation, counseling, and friendship), and role modeling (modeling values, attitudes, and behaviors as well as a possible career path) (Dickson et al., 2014; Kram, 1985). Receiving this mentoring support has been associated with various benefits for the protégé including attitudinal, behavioral, career-related, health-related, and motivational outcomes (Eby et al., 2013; Ghosh & Reio, 2013).

We propose that mentoring support heightens the salience of protégés' future leader selves. First, mentoring opens opportunities to explore and play with future identities. Providing information and support for protégés' advancement is one of the important functions of mentoring (career support; Ghosh, 2014; Kram, 1985). Mentoring goes beyond discussions with co-workers or supervisors as it offers a safe haven from which protégés can explore new ways of envisioning and enacting leadership (Hammond et al., 2017; Ragins, 2012). By discussing what could lie ahead with a supportive and benevolent mentor, protégés might be encouraged to "think bigger" than before and to overcome self-limiting beliefs about leadership (Joo et al., 2018; Muir, 2014). Through the discussion of potential roles, career paths, and the protégé's ambitions and aspirations, mentoring support may guide protégés to mentally travel into their future as leaders (Lord & Brown, 2004). This may enable protégés to envision their desired future leader self, to anticipate future requirements and to lay out plans to make their dreams reality (Strauss et al., 2012; Taylor et al., 1998).

Second, mentoring offers psychosocial support to protégés. In particular, protégés receive feedback and validation which may encourage them to envision future leader selves (Braun & Lord,

2017). Others' reactions are a powerful force in shaping self-views, since individuals replicate those behaviors which are approved by significant others (Dutton & Dukerich, 1991; Ibarra, 1999).

Mentoring support is a fruitful source of feedback about strengths and weaknesses, as well as reflected approval of future endeavors (Day & Allen, 2004; Pan et al., 2011). Positive verbal messages of confirmation and acceptance might heighten the salience of a future leader self in protégés (Muir, 2014). Acting on positive feedback helps protégés to improve and stretch their aspirations (Ibarra, 1999). Beyond that, protégés may receive social validation for their first leadership attempts: Opportunities in mentoring that grant a leader identity to the protégé – for example a recommendation for promotion or entrusting protégés with leading a business meeting – may affirm protégés' future representation of themselves as leaders (Braun & Lord, 2017; DeRue & Ashford, 2010).

Third, mentoring plays an important role to support and guide protégés in understanding their leadership-related experiences (Avolio & Vogelgesang, 2011; Hammond et al., 2017; Lester et al., 2011; Lord & Brown, 2004). While protégés might experience leadership in their everyday life - as observers, followers or leaders - mentoring support helps to interpret these experiences (Weick, 1995), especially those that are new, unexpected, or confusing (Maitlis & Christianson, 2014). For example, the mentoring dyad might jointly reflect on protégés' leadership experiences in a new role. This is crucial since especially young professionals struggle to meaningfully interpret their leadership experiences (Benjamin & O'reilly, 2011). Joint reflection and guidance by a mentor in critical learning moments can facilitate the development of an identity as a leader (Muir, 2014), where future leader selves are part of (Epitropaki et al., 2017). The psychosocial support protégés receive in mentoring may integrate their leadership experiences as a meaningful part in their future selves and help to form a clear image of who they might become (Braun & Lord, 2017; Guillén et al., 2015).

Lastly, through mentoring support protégés can observe their mentors as exemplary role models on which they can build their future leader selves (Lord & Brown, 2004). Observing a mentor



might enrich a vague idea about the future self as a leader with tangible and detailed contents and meanings (Ritter & Lord, 2007). Leadership modeled by other people influences not only our mental representation of leadership per se, but also how we see ourselves as (potential) leaders (Guillén et al., 2015; Zaar et al., 2020). Through vicarious learning protégés gain insight into how they can accomplish their desired future leader selves (Bandura, 1977). Moreover, protégés might see their mentors as a representation of their hoped-for future leader self (Kark, 2011). For example, the mentor might display leadership qualities which the protégé would like to emulate (Ibarra, 1999). Studies have shown that especially early in their career, people tend to construct their future selves on role models that are important to them (Gibson, 2004; Ibarra, 1999). This might reassure them that they too can accomplish the same and paint a future leader self in a more attainable light.

In sum, we propose that mentoring support heightens the salience of protégés' future leader selves.

*Hypothesis 1.* Mentoring support positively relates to protégés' salience of future leader selves.

### **3.3 The Moderating Effect of Mentors' Affective Motivation to Lead**

Mentoring literature has underlined the critical role of the mentor in the mentoring process (Eby et al., 2013; Ghosh, 2014). Mentors are important in providing effective mentoring support tailored to the protégés' needs, as the type of mentor forms the support he or she provides (Chandler et al., 2011; Lapierre et al., 2012; Tonidandel et al., 2007). Since mentors play such a key role, mentors' affective motivation to lead will most likely be an essential boundary condition whether or not mentoring support positively relates to protégés' salient future leader selves. Specifically, we argue that mentors' willingness to lead out of enjoyment (affective motivation to lead) will serve as a moderator (Chan & Drasgow, 2001). We focus on *affective* motivation to lead, since this facet represents an intrinsic desire to take on leadership rather than leading out of other

reasons, such as social duty (social-normative motivation to lead) or out of calculation of risks and benefits (non-calculative motivation to lead) (Guillén et al., 2015).

We suggest that only for mentors with high affective motivation to lead, mentoring support will heighten protégés' salience of future leader selves. First, mentors who are affectively motivated to lead are passionate about leadership (Chan & Drasgow, 2001). Those mentors are eager to talk about leadership in general, but also might be enthusiastic to learn about and discuss their protégés' leadership experiences and ambitions. Thus, it is likely that leadership topics are discussed in the mentoring sessions and protégés' identity play with future leader selves is fostered to a greater extent (Muir, 2014). In cases where mentors are not or only weakly affectively motivated to lead, it is unlikely that they will nurture salient future leader selves in protégés. For instance, these mentors will not as eagerly serve as guides in discussing protégés' future leader selves. Mentoring advice and guidance then might revolve around other topics than leadership.

Second, mentors who are affectively motivated to lead might provide a source of inspiration for their protégés and represent an exemplar future leader self protégés can adopt (Lester et al., 2011). Mentoring support provided by mentors who enjoy leading thus might encourage protégés in taking on leadership themselves. In fact, role modeling largely depends on attractive characteristics of the model that are relevant to the observing individual (Bandura, 1977). Mentors who are not or only weakly affectively motivated to lead will not serve as a role model protégés can build on their future leader selves, since they are not interested in pursuing leadership themselves.

Third, affect associated with a certain future self has been noted to be particularly crucial in determining which aspect of the self becomes salient (Lord & Brown, 2004; Markus & Nurius, 1986). Mentors' excitement about leadership might leverage the positive effect of mentoring support on inspiring future leader selves (Bono & Ilies, 2006; Cherulnik et al., 2001). Thus, highly affectively motivated mentors might generate positive emotional linkages to future leader selves in the support

they provide, further heightening their salience (Lord & Brown, 2004). Therefore, we propose mentors' affective motivation to lead as an important boundary condition.

*Hypothesis 2.* Mentors' affective motivation to lead moderates the positive relationship between mentoring support and protégés' salience of future leader selves, such that when mentors have a strong (as opposed to weak) motivation to lead, mentoring support positively relates to protégés' salience of future leader selves.

### **3.4 The Effect of Salient Future Leader Selves on Protégés' Affective Motivation to Lead**

We propose that a salient future leader self acts as a precursor for protégés' affective motivation to lead. While prior research focused on relatively stable characteristics which predict individuals' motivation to lead (e.g. personality and values; Badura et al., 2019; Chan & Drasgow, 2001; Gottfried et al., 2011), more recent approaches revealed that the motivation to lead is malleable and formed in social contexts (Guillén et al., 2015; Joo et al., 2018). For instance, individuals' comparison of their own leadership capabilities to exemplary or prototypical leaders, have been demonstrated as effective in enhancing leadership motivation (Guillén et al., 2015; Schyns et al., 2020). We consider affective motivation to lead as a particular relevant outcome of mentoring relationships. Affective motivation to lead is the strongest predictor of leadership outcomes, including supervisor-rated leadership potential and leader emergence, as well as beneficial leadership behaviors and effectiveness (Badura et al., 2019; Hendricks & Payne, 2007). Thus, affective motivation to lead as the specific pursuit of leadership roles and responsibilities (Chan & Drasgow, 2001) is an important predictor of leadership outcomes that goes beyond the predictive power of future leader selves.

We argue that protégés' salient future leader selves promote their affective motivation to lead for the following reasons. First, leadership motivation is created by the discrepancy between one's current and the future leader self (Markus & Nurius, 1986; Markus & Wurf, 1987). Markus and Nurius (1986) relate this discrepancy to an unpleasant tension individuals wish to reduce by striving

for their goals. Thus, in order to reduce this tension, future leader selves might promote motivation to approach the desired self and make it a reality. Second, future leader selves might attract attention to those situations in which individuals can take over the lead (Lord & Brown, 2004). Only if protégés have a mental picture of themselves as (future) leaders, they might actually recognize leadership opportunities as such and are thus motivated to seize them. Third, future leader selves represent desirable end states that give meaning to one's current actions (Markus & Nurius, 1986; Markus & Wurf, 1987). In that sense, future leader selves may serve as a compass that guides motivation towards taking over leadership and that regulates proactive behavior towards leadership (Strauss et al., 2012). By picturing themselves as future leaders protégés are motivated to approach any opportunities that bring them close to their desired self and that allow them to practice leadership (Day et al., 2009; Epitropaki et al., 2017; Lord et al., 1999). In fact, highly salient future leader selves can be interpreted as an early sign for leadership-specific motivation and experience over time (Lord & Hall, 2005). Lastly, even though leadership often poses exceptional demands and challenges, future leader selves drive protégés to enact this aspect of the self and fuel their continuing effort regarding leadership (Day et al., 2009; DeRue & Ashford, 2010). In this regard, self-views as a (potential) leader lend the strength to exert effort to reach the ideal regardless of potential deterrent aspects, thus resulting in greater motivation to lead (Schyns et al., 2020).

Although possible selves are located in the future, studies have shown that they can have a profound effect on current motivation and behavior, including positive motivational states, vision pursuit, proactive career behaviors, as well as future-focused intention and engagement (Landau et al., 2014; Markus & Nurius, 1986; Oyserman et al., 2015; Stam et al., 2014; Strauss et al., 2012; Taber & Blankemeyer, 2015). In sum, we argue that salient future leader selves will intrinsically motivate to take on leadership.

*Hypothesis 3.* Protégés' salience of future leader selves positively relates to protégés' affective motivation to lead.

### **3.5 Conditional Indirect Effect of Mentoring Support on Protégés' Affective Motivation to Lead**

Future selves have been argued as self-guides that bridge cognition and motivation (Markus & Nurius, 1986). Relative to the status quo, they reveal developmental opportunities, promote goal-pursuit and have the potential to increase the motivation to reach ones' ideals (Banaji & Prentice, 1994; Markus & Wurf, 1987). Building on the above-mentioned reasoning we thus propose salient future leader selves as the cognitive mechanism which indirectly links mentoring support to protégés' affective motivation to lead. Prior research has pointed to the important role of mentoring for leader development in general (Day & Dragoni, 2015; Ibarra, 1999; Lester et al., 2011; Lord & Brown, 2004). However, we go one step further and suggest salient future leader selves as the mechanism that translates received mentoring support in leadership motivation.

*Hypothesis 4.* Protégés' salience of future leader selves mediates the relationship between mentoring support and affective motivation to lead.

As outlined above, we further assume that the indirect effect of mentoring support on protégés' affective motivation to lead through their future leader self salience depends on mentors' affective motivation to lead. Only when mentors are affectively motivated to lead, mentoring support will render protégés' future leader selves more salient, which will in turn promote protégés' desire to lead.

*Hypothesis 5.* Moderated indirect effect: Mentors' affective motivation to lead moderates the indirect effect of mentoring support on protégés' affective motivation to lead via their salience of future leader selves, such that when mentors have a strong (as opposed to weak) motivation to lead, there is an indirect effect.

### **3.6 Overview of Studies**

We examined our proposed theoretical model with two multi-source field studies. In Study 1, we conducted a cross-sectional field study with mentoring dyads from various industries. In

Study 2, we conducted a three-wave longitudinal study with mentoring dyads from a large mentoring program at a German university.

## **4. Study 1**

### **4.1 Method**

#### ***4.1.1 Sample and Procedure***

We conducted a cross-sectional field study with mentoring dyads (protégés and mentors) in Germany. We recruited mentoring dyads through the own professional network and via direct approach on social media platforms (e.g., LinkedIn). As an incentive, participants were rewarded with a personality profile, a leadership reflection certificate, and had the opportunity to take part in a raffle.

To be included, protégés and mentors had to be employed (minimum part-time) and having an ongoing mentoring relationship in the work context. For this purpose, participants were provided with a definition of occupational mentoring (Kram, 1985). This included an explanation of mentoring and some examples of how mentoring support is offered in the work context. Participants were then asked to indicate whether they had a current mentoring relationship in the work context. These relationships could be both, informal or formal. While informal mentoring relationships emerge naturally over time, formal mentoring relationships are formed by a third party in the context of a managed mentoring program (Wanberg et al., 2006; Wanberg et al., 2003). A total of 440 protégés and 191 mentors completed the survey. Following recommendations of DeSimone et al. (2015) we checked answers to an instructed item and to open comments as indicators for low participants effort. Based on these criteria, seven mentors and 17 protégés were excluded. After matching the completed and usable questionnaires via codes, we obtained 150 mentoring dyads included in the final sample.

The sample comprised informal (72%) and formal (28%) mentoring dyads working in a variety of sectors including academia and research facilities (14.0%), financial industry (14.0%),

railroad industry (12.3%), consulting and service (9.3%), tech industry (5.3%), industrial manufacture (5.3%), education (5.0%) and others (34.7%). On average, mentoring dyads reported a relationship length of 13.41 months ( $SD = 12.89$ , ranging from 1 to 72) and interacted with each other 17.89 ( $SD = 23.48$ , ranging from 1 to 225) times per month (i.e., face-to-face, telephone, e-mail). Of the protégés, 73.3% were female (26.0% male, 0.7% diverse) with a mean age of 27.91 years ( $SD = 5.88$ , ranging from 19 to 50 years) and a mean leadership experience of 0.93 years ( $SD = 2.17$ ). On average, protégés worked 35.03 hours per week ( $SD = 7.58$ ) with an organizational tenure of 3.79 years ( $SD = 3.71$ ). Of the mentors, 53.3% were female (46.7% male) with a mean age of 39.45 years ( $SD = 10.01$ , ranging from 22 to 64 years) and an average leadership experience of 7.13 years ( $SD = 7.93$ ). On average, mentors worked 38.67 hours per week ( $SD = 5.67$ ) with an organizational tenure of 9.68 years ( $SD = 7.48$ ). Of the mentoring dyads, 62.0% ( $n = 93$ ) were of the same gender and for 29.3% the direct supervisor served as a mentor.

#### 4.1.2 Measures

Protégés and mentors answered one online-survey each. For protégés, we assessed socio-demographics, mentoring support received, salience of future leader self, affective motivation to lead, and control variables. For mentors, we assessed socio-demographics and their affective motivation to lead. We translated all measures into German using the double-blinded back-translation approach suggested by Brislin (1970).

**Mentoring Support** ( $\alpha = .85$ ) was assessed with the 9-item Mentoring Functions Questionnaire (MFQ-9; Castro & Scandura, 2004) using a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). Sample items are “My mentor helps me coordinate professional goals”, “I exchange confidences with my mentor”, and “I try to model my behavior after my mentor”.

**Salience of Future Leader Self** ( $\alpha = .89$ ) was assessed with the writing task and measure by Strauss et al. (2012). We slightly adapted the instruction of the writing task to fit the future self to the leadership domain. Protégés were instructed to mentally travel into the future and imagine their

hoped-for future self as a leader. In a couple of short sentences (about 50 words) they described what they imagined. Protégés then indicated the salience of their future leader self by responding to the 5-item measure by Strauss et al. (2012) using a 5-point response format (1 = *strongly disagree* to 5 = *strongly agree*). Sample items are “The mental picture of this future is very clear” and “I can easily imagine my Future Leader Self”.

**Affective Motivation to Lead** ( $\alpha = .92$  for protégés,  $\alpha = .89$  for mentors) was measured on the 9-item affective-identity subscale by Chan and Drasgow (2001) using a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*). Sample items are “I usually want to be the leader in the groups that I work in” and “I am the type of person who is not interested to lead others” (reverse-scored).

**Control Variables.** We included control variables based on their theoretical relevance and empirical correlation with our outcome variables. Based on existent leadership research (Badura et al., 2019; Chan & Drasgow, 2001) we considered controlling for prior leadership experience of protégés and mentors. Additionally, based on previous mentoring theory and research (Eby et al., 2013; Ragins & Cotton, 1999), we considered controlling for gender composition and interaction frequency (times of contact and number of meetings) of the mentoring dyads, as well as relationship length and formality. Since these variables regarding the mentoring relationship were not significantly related to our outcome variables (Becker et al., 2016; Carlson & Wu, 2012), we did not include them in further analyses. Both, protégés' ( $r = .26, p = .002$ ) and mentors' ( $r = .28, p = .001$ ) leadership experience were significantly related to protégés' affective motivation to lead and thus, were included in all analyses.

## 4.2 Results

### 4.2.1 Confirmatory Factor Analysis

To examine the measurement model we conducted confirmatory factor analyses (CFA) using maximum likelihood estimation in Mplus 8.4. Exact model fit ( $\chi^2$ ), degrees of freedom, the probability value, and two approximate fit indices (CFI, RMSEA) are reported. Researchers



recommended that RMSEA should be equal or lower than .06 and CFI greater than .90 (Beauducel & Wittmann, 2005; Hu & Bentler, 1998). Recommendations for cut-off values of model fit indices are rules of thumb which have been debated by researchers (MacCallum et al., 1996). Also, fit indices should be used to compare different models, not simply as golden rules (Nye & Drasgow, 2011).

The measurement model included the following four factors: mentoring support, mentors' affective motivation to lead, protégés' salience of future leader self, and protégés' affective motivation to lead. We tested the four-factor model against the best-fitting three-factor model, where mentoring support and salience of future leader self loaded on one factor, and the best-fitting two-factor model, with mentoring support and salience of future leader self as one factor and with affective motivation to lead of both, protégés and mentors, as one factor, as well as the one-factor model. The results of the four-factor model suggested that the model fit remained below the recommendations on acceptable fit indices ( $\chi^2(496) = 3262.40$ ,  $p < .001$ ,  $\chi^2/df = 2.1$ ; CFI = .82; RMSEA = .085). Comparing the four-factor model to the best-fitting three-factor model ( $\Delta\chi^2 = 324.58$ ,  $\Delta df = 3$ ,  $p < .001$ ), the best-fitting two-factor model ( $\Delta\chi^2 = 863.15$ ,  $\Delta df = 5$ ,  $p < .001$ ) and the one-factor model ( $\Delta\chi^2 = 2073.66$ ,  $\Delta df = 7$ ,  $p < .001$ ), results indicate that the four-factor model was superior.

#### **4.2.2 Descriptive Statistics**

Means, standard deviations, correlations, and reliability estimates of the study measures are reported in Table 1. Mentoring support was positively related to salience of future leader self ( $r = .37$ ,  $p < .001$ ), but unrelated to protégés' affective motivation to lead ( $r = .03$ ,  $p = .741$ ). Salience of future leader self ( $r = .42$ ,  $p < .001$ ) and mentors' affective motivation to lead ( $r = .23$ ,  $p = .004$ ) were both positively related to protégés' affective motivation to lead.

**Table 1***Study 1: Means, Standard Deviations, Correlations, and Reliability Estimates for Study Variables*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Protégé Mentoring Support Received	5.27	1.02	(.85)					
2. Mentor Affective Motivation to Lead	5.25	1.13	.01	(.89)				
3. Protégé Salience of Future Leader Self	3.74	0.85	.37**	.11	(.89)			
4. Protégé Affective Motivation to Lead	4.87	1.22	.03	.23**	.42**	(.92)		
5. Protégé Leadership Experience	0.93	2.17	-.03	.11	.15	.26**	-	
6. Mentor Leadership Experience	7.13	7.93	-.16*	.24**	.14	.28**	.39**	-

*Note.* *N* = 150. Reliability estimates (Cronbach's  $\alpha$ ) are reported along the diagonal.

\*  $p < .05$ . \*\*  $p < .01$ .

#### 4.2.3 Hypotheses Testing

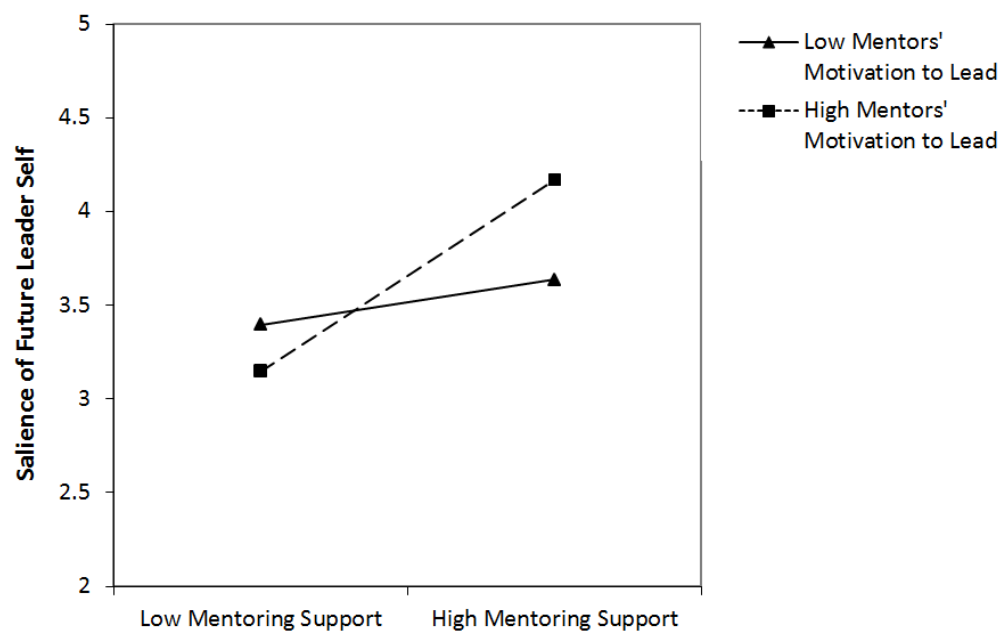
For testing our hypotheses, we applied linear regression analyses in SPSS 25 and the PROCESS macro version 3.3 (Hayes, 2017) with a bootstrapping approach. The indirect effect was tested utilizing bias-corrected 95%-confidence intervals built from estimates based on 10,000 bootstrap samples (Hayes, 2017; Preacher et al., 2007). The predictors were mean-centered before creating interaction terms (Hayes, 2017). Following recommendations by Becker et al. (2016) we conducted our analyses with and without control variables, leading to the same pattern of results.

**Hypothesis 1** posited that mentoring support positively relates to protégés' salience of future leader self. Supporting Hypothesis 1, results indicated that mentoring support positively predicted salience of future leader self ( $\beta = .40, p < .001$ ). **Hypothesis 2** stated that mentors' affective motivation to lead moderates the relationship between mentoring support and salience of future leader self. Results showed that the interaction term was significant ( $b = .17, p = .003$ ) and in the proposed direction. A simple slope test revealed that among mentors with a high motivation to lead the relationship between mentoring support and salience of future leader self was positive

( $b = .50, p < .001$ ), while there was no relationship among mentors with a low motivation to lead ( $b = .12, p = .216$ ). The moderation effect is visualized in Figure 2. Thus, Hypothesis 2 was supported.

**Figure 2**

*Study 1: The moderation effect of mentors' affective motivation to lead between protégés' received mentoring support and their salience of future leader selves*



Note.  $N = 150$ .

**Hypothesis 3** assumed that protégés' salience of future leader self positively relates to protégés' affective motivation to lead. Supporting Hypothesis 3, findings showed that salience of future leader self positively predicted affective motivation to lead ( $\beta = .38, p < .001$ ). **Hypothesis 4** stated that protégés' salience of future leader self mediates the relationship between mentoring support and their affective motivation to lead. Results supported a positive indirect effect of mentoring support on affective motivation to lead through salience of future leader self ( $b = .20, CI [.11;.33]$ ). Thus, Hypothesis 4 was supported. **Hypothesis 5** predicted a moderated mediation effect of mentor's affective motivation to lead on the indirect effect of mentoring support on

protégés' affective motivation to lead through their salience of future leader self. The index of moderated mediation was significant and in the proposed direction ( $b = .10$ , CI  $[.02; .19]$ ). Results of a simple slope test revealed that among mentors with a high motivation to lead the indirect effect was significant ( $b = .30$ , CI  $[.17; .47]$ ), while there was no indirect effect among mentors with a low motivation to lead ( $b = .07$ , CI  $[-.04; .23]$ ). Therefore, Hypothesis 5 was supported.

### 4.3 Discussion

In Study 1, we conducted a cross-sectional field study with mentoring dyads in the workplace. Our findings revealed that dependent on mentors' affective motivation to lead mentoring has the potential to fuel protégés' affective motivation to lead. Specifically, when mentors were highly motivated to lead, mentoring support was positively related to protégés' salience of future leader self and their subsequent affective motivation to lead. However, the cross-sectional design of Study 1 has limitations, since there is a risk of common method bias, as predictor and outcome variables were rated by the same individual at a single point in time (Podsakoff et al., 2012). This may produce artefactual covariation that inflates the relationships studied (Podsakoff et al., 2003). In addition, it only captures one moment in time. To overcome these limitations and to examine changes over time, we conducted an additional three-wave longitudinal study in the context of a formal mentoring program at a German university.

Exploring the impact of mentoring on leadership motivation among university students is relevant, since the development toward leadership is not restricted to formal leadership positions, as people with and without formal leadership roles perceive themselves as a leader to a lesser or greater extent (Van Quaquebeke et al., 2011). In fact, early experiments with leadership claims and behaviors can start in childhood well before one holds a formal leadership position (Avolio & Vogelgesang, 2011; Murphy & Johnson, 2011; Van Knippenberg, 2018). Also, universities have been suggested to be suitable learning environments to positively impact ongoing leader development, a

process which evolves across the lifespan (Day & Dragoni, 2015; Komives & Dugan, 2014; Sternberg, 2011; Zaar et al., 2020).

## 5. Study 2

### 5.1 Method

#### 5.1.1 Sample and Procedure

We conducted a three-wave longitudinal field study in a formal peer mentoring program at a German university. The mentoring program is designed to ease freshmen's (i.e. protégés) transition into higher education by pairing them up with more experienced students (i.e. mentors) in their field of study. Mentors are formally trained and prepared for their role<sup>1</sup> before they guide their protégés voluntarily throughout their first academic year at university (9 months). Data was collected together with three surveys that are part of the overall scientific monitoring of the program and separated by approximately 4-5 months each. These surveys take place prior to entering the program, at the midpoint, and at the end of the program. As an incentive, participants could take part in a raffle.

All program participants (1,207 protégés and 553 mentors) completed the first survey prior to the program. A total of 338 protégés completed the second survey (response rate of 28.0%), out of which 172 completed the third survey (response rate of 50.9%). Following recommendations of DeSimone et al. (2015), we applied two techniques to detect inattentive respondents: Self-reports of low effort and instructed items ("Please tick 4 here."). In addition, we only included participants with German skills equal or higher level B2 since some participants indicated language problems with the second and third surveys that were held in German.<sup>2</sup> We excluded participants accordingly (n = 18 protégés, n = 6 mentors). Mentors in the program partly mentored multiple protégés (2.6% of the sample; n = 25 mentors with n = 31 protégés). For these cases, we randomly selected one of the

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<sup>1</sup> In a two-day workshop, mentors learn basics of what mentoring is, what kind of support they can offer protégés and how the mentoring program is designed. Moreover, they practice their communication and consulting skills in a couple of exercises.

<sup>2</sup> The mentoring program we studied was open to all students who speak a variety of languages.

protégés to obtain mentoring dyads only. After matching the completed and usable questionnaires via codes, the final sample consisted of 123 mentoring dyads.

Of the protégés, 74.0% were female (26.0% male) with a mean age of 19.77 years ( $SD = 3.79$ , ranging from 17 to 56 years) and an average leadership experience of 11.03 months ( $SD = 25.87$ ). Of the mentors, 72.4% were female (27.6% were male), with a mean age of 21.61 years ( $SD = 2.22$ , ranging from 18 to 31 years) and an average leadership experience of 11.43 months ( $SD = 16.70$ ). Of the mentors, 8.1% were graduate students. Of the mentoring dyads, 65.9% ( $n = 81$ ) were of the same gender. Mentoring dyads had on average 29.52 direct interactions ( $SD = 27.69$ , ranging from 1 to 187) over the course of the program (face-to-face, telephone, or e-mail).

### **5.1.2 Measures**

At the first point of measurement prior to entering the program, we assessed mentors' affective motivation to lead, protégés' future leader self salience, control variables and socio-demographic information. At the second point of measurement, protégés indicated the mentoring support they had received. At the third measurement point, we assessed protégés' future leader self salience and affective motivation to lead. We applied the same measures as in Study 1 and adapted them slightly to fit the university context.

**Mentoring Support** ( $\alpha = .93$ ). We applied the Mentoring Functions Questionnaire (MFQ-9) (Castro & Scandura, 2004) in a slightly adapted version to fit the mentoring context of the study. Sample items are "My mentor helps me coordinate my study goals" and "My mentor has devoted special time and consideration to my studies".

**Salience of Future Leader Self** ( $\alpha = .87$  at T1,  $\alpha = .93$  at T3). At the first assessment, protégés completed an adapted version of the writing task and scale we used in Study 1 (Strauss et al., 2012). Similarly, at the third point of measurement, protégés were again asked to imagine their future selves as leaders and to complete the salience scale.

**Affective Motivation to Lead** ( $\alpha = .91$  for protégés,  $\alpha = .90$  for mentors). Protégés' and mentors' affective motivation to lead was assessed with the same measure as in Study 1 (Chan & Drasgow, 2001).

**Control Variables.** Similarly to Study 1, we controlled for those variables that were of theoretical relevance and empirically correlated with our outcome variables. Leadership experience of protégés was significantly related to protégés' salience of future leader self ( $r = .32, p < .001$ ) and affective motivation to lead ( $r = .30, p = .001$ ) and was subsequently controlled for.

## 5.2 Results

### 5.2.1 Confirmatory Factor Analysis

We conducted CFAs to test the construct validity of the measurement model with the same analytical approach and the same four factors as in Study 1. We tested the four-factor model against the best-fitting three-factor model, where salience of future leader self and protégés' affective motivation to lead loaded on one factor, and the best-fitting two-factor model, with mentoring support and mentors' affective motivation to lead as one factor and with salience of future leader self and protégés' affective motivation to lead, as one factor, as well as the one-factor model. The model fit of the four-factor model was close to acceptable ( $\chi^2(458) = 793.82, p < .001, \chi^2/df = 1.7$ ; CFI = .88; RMSEA = .077) (Beauducel & Wittmann, 2005; Hu & Bentler, 1998). Chi-squared difference tests to the best-fitting three-factor model ( $\Delta\chi^2 = 233.192, \Delta df = 3, p < .001$ ), the best-fitting two-factor model ( $\Delta\chi^2 = 768.168, \Delta df = 5, p < .001$ ), and the one-factor model ( $\Delta\chi^2 = 1657.915, \Delta df = 6, p < .001$ ) indicated that the four-factor model had the best fit with our data.

### 5.2.2 Descriptive Statistics

Table 2 shows means, standard deviations, correlations, and reliability estimates of the study measures. Against our expectations, mentoring support was not related to protégés' salience of future leader self ( $r = .14, p = .122$ ). However, protégés' salience of future leader self was positively related to protégés' affective motivation to lead at T3 ( $r = .61, p < .001$ ).

**Table 2***Study 2: Means, Standard Deviations, Correlations, and Reliability Estimates for Study Variables*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Protégé Mentoring Support Received (T2)	4.33	1.49	(.93)					
2. Mentor Affective Motivation to Lead (T1)	4.79	1.06	.12	(.90)				
3. Protégé Salience of Future Leader Self (T3)	3.51	0.99	.14	.16	(.93)			
4. Protégé Affective Motivation to Lead (T3)	4.64	1.23	.07	.17	.61**	(.91)		
5. Protégé Salience of Future Leader Self (T1)	3.57	0.93	.16	.07	.51**	.45**	(.87)	
6. Protégé Leadership Experience (T1)	11.03	25.87	-.13	.01	.32**	.30**	.27**	-

*Note.* *N* = 123. Reliability estimates (Cronbach's  $\alpha$ ) are reported along the diagonal.

\*  $p < .05$ . \*\*  $p < .01$ .

### 5.2.3 Hypotheses Testing

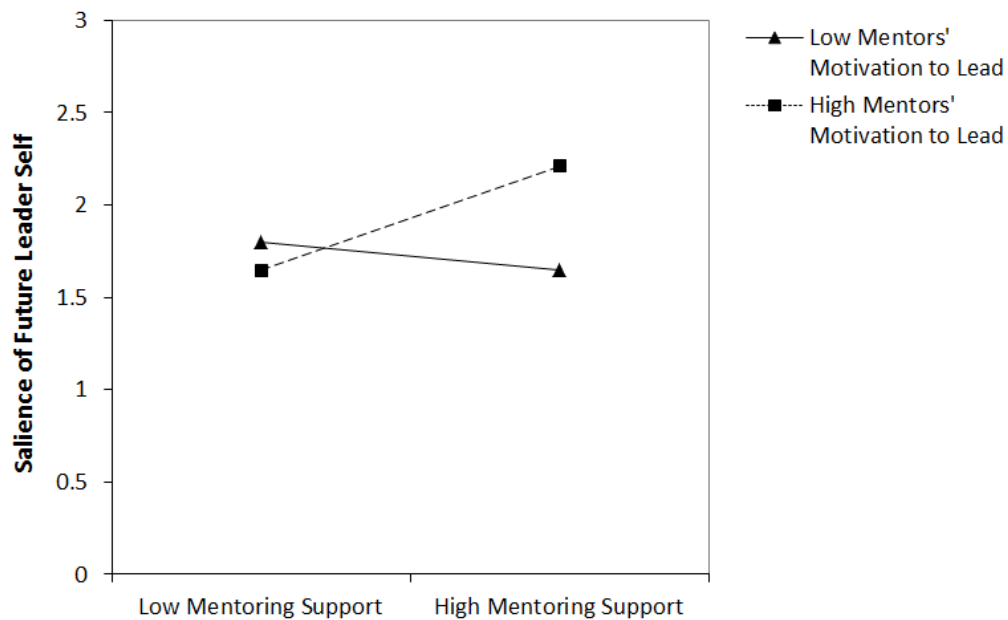
We conducted the same analytical procedures outlined in Study 1. Additionally, we controlled for protégés' salience of future leader self at T1 in all analyses in order to track changes in future leader self salience over a time period of approx. 9 months (T1-T3). We conducted our analyses with and without the inclusion of control variables, leading to the same pattern of results (Becker et al., 2016).

**Hypothesis 1** stated that mentoring support positively relates to protégés' salience of future leader self. Results revealed that mentoring was not related to changes in the salience of future leader self ( $\beta = .10$ ,  $p = .214$ ). Hypothesis 1 was not supported. **Hypothesis 2** posited that mentors' affective motivation to lead moderates the relationship between mentoring support and salience of future leader self. Moderation analysis showed a significant interaction ( $b = .11$ ,  $p = .025$ ) in the proposed direction: Among mentors with a high motivation to lead mentoring support positively predicted an increase in the salience of future leader self ( $b = .19$ ,  $p = .017$ ), while it did not among mentors with a low motivation to lead ( $b = -.05$ ,  $p = .463$ ). The interaction effect is depicted in Figure 3. Thus, Hypothesis 2 was supported.



**Figure 3**

*Study 2: The moderation effect of mentors' affective motivation to lead between protégés' received mentoring support and their salience of future leader selves*



Note.  $N = 123$ .

**Hypothesis 3** assumed that protégés' salience of future leader selves positively relates to protégés' affective motivation to lead. Changes in the salience of future leader self were positively related to affective motivation to lead ( $\beta = .49, p < .001$ ). Therefore, Hypothesis 3 was supported.

**Hypothesis 4** predicted that protégés' salience of future leader self mediates the relationship between mentoring support and affective motivation to lead. Results showed no indirect effect of mentoring support on affective motivation to lead through changes in salience of future leader self ( $b = .04, CI [-.03; .12]$ ). Hypothesis 4 was not supported. **Hypothesis 5** assumed a moderated mediation effect of mentor's affective motivation to lead on the indirect effect of mentoring support on protégés' affective motivation to lead through their salience of future leader self. Results supported our proposed moderated mediation in the predicted direction (index:  $b = .07, CI [.02; .15]$ ) and revealed that among mentors with a high motivation to lead the indirect effect was significant

( $b = .12$ , CI [.03;.24]), while it was not significant among mentors with a low motivation to lead ( $b = -.03$ , CI [-.13;.04]). Therefore, Hypothesis 5 was supported.

### 5.3 Discussion

In Study 2, we complemented and extended Study 1 by a three-wave longitudinal study with mentoring dyads in the university context. Results revealed that mentoring support did not generally relate to changes in protégés' salience of future leader selves. However, when mentors' affective motivation to lead was high, mentoring support positively predicted an increase in protégés' salience of future leader selves. Overall, findings of Study 2 provided support for the proposed moderated mediation: The indirect effect of mentoring support on protégés' affective motivation to lead through changes in the salience of future leader self was only significant among mentors with high motivation to lead. The similar pattern of results we found across both samples stands in favor of the replicability and generalizability of our findings.

## 6. General Discussion

The current research examined why and under which conditions mentoring predicts protégés' motivation to lead. Drawing on future selves in leadership (Braun & Lord, 2017; Lord & Brown, 2004; Markus & Nurius, 1986) and mentoring literature (Joo et al., 2018; Kram, 1985; Lester et al., 2011) we developed a theoretical model proposing future leader selves as a cognitive bridge between mentoring support and protégés' affective motivation to lead. Importantly, we studied mentors' affective motivation to lead as a relevant boundary condition in the relationship between mentoring support and the salience of protégés' future leader selves. Results from two multi-source field studies in two different contexts (employees and university students) mainly supported the proposed theoretical model and highlight the relevant role of the mentor: Only in cases where the mentor was intrinsically motivated to lead, mentoring support increased the salience of protégés' future leader self, thereby indirectly predicting protégés' affective motivation to lead.

### 6.1 Theoretical Implications

Our study contributes to leadership and mentoring literature in various ways. First, by revealing mentoring as an important social antecedent we contribute to research on possible future selves in general (Markus & Nurius, 1986; Strauss et al., 2012) and particularly in relation to leadership (Braun & Lord, 2017; Lord & Brown, 2004). While the relevance of future selves as a motivational driver has been previously underlined (Markus & Nurius, 1986; Strauss et al., 2012), antecedents that give salience to future selves have largely remained unknown. Across two different contexts we demonstrated that mentoring has the potential to increase the salience of protégés' future leader selves. These findings are in line with theory and research that views social interactions as important contributors to the development of possible selves and self-views as a leader (Day & Harrison, 2007; Ibarra, 1999; Lord & Brown, 2004; Markus & Wurf, 1987).

Second, we extend existing research by introducing future leader selves as a cognitive mechanism that links mentoring support to protégés' affective motivation to lead. Prior research focused on so called "can do" pathways of motivation (Parker et al., 2010): These studies showed that mentoring nurtures leadership outcomes via enhanced leadership skills and self-efficacy beliefs (Chun et al., 2012; Joo et al., 2018; Lester et al., 2011). However, in order to take on and be persistent in demanding leadership roles, one needs a "reason to" do so (Parker et al., 2010). The present work highlights future leader selves as a valuable reason that explains why mentoring relationships help protégés to feel passionate and motivated about leadership activities. These findings are promising because they not only emphasize the positive leverage of mentoring on leadership motivation, but they reveal the psychological mechanism underlying it. Therefore, our results explain why mentoring can be useful in fostering the next line of leaders in organizations and society as a whole, as we found positive effects of mentoring on leadership motivation among employees and university students.

Beyond that, we demonstrated how characteristics of mentors and the mentoring support they provide interact to elicit future leader selves in protégés. Across both studies, we found evidence that the effect of mentoring on protégés' salient future leader selves and affective motivation to lead is bound to mentors' affective motivation to lead. This tells us that affectively motivated mentors serve as a source of inspiration for protégés and thus, play a crucial role in eliciting future leader selves. These findings are similar to research on emotional contagion processes between leaders and followers which demonstrated that leaders generate positive emotional linkages to their vision (Bono & Ilies, 2006; Cherulnik et al., 2001; Stam et al., 2014; Stam et al., 2010). Moreover, mentors' affective leadership motivation might serve as a necessary requirement for the dyad to engage in leadership mentoring. It might be that only when mentors enjoy leading, they provide the kind of mentoring support that nurtures the salience of future leader selves in protégés. This might include discussing protégés' leadership aspirations, encouraging leadership attempts by the protégé and validating those attempts, and serving as a tangible role model.

Further, both studies support the positive relationship between protégés' salient future leader selves and their affective motivation to lead. Beyond that, we showed in Study 2 that changes in future leader self salience fostered the affective motivation to lead. These findings extend previous assumptions that the motivation to lead is vastly driven by relatively stable traits, like personality and values (Badura et al., 2019; Chan & Drasgow, 2001), and underline the importance of cognitive-sense making variables in leadership motivation (Guillén et al., 2015). In fact, we gathered empirical evidence that the motivation to lead can be indirectly predicted by social interactions with significant others (Braun & Lord, 2017).

Third, we contribute to mentoring and leadership literature by unveiling mentoring as a viable instrument to enhance leadership motivation not only in employees, but also in university students. By not only sticking to formal leadership roles we show that a variety of organizational

actors – workplace and student mentors – can affect leadership motivation (Day & Dragoni, 2015). In doing so, we answer the call to increase the amount of individuals who are genuinely interested in taking on leadership, starting from a young age (Porter et al., 2016; Schyns et al., 2020). Since a recent meta-analysis suggests motivation to lead as an important precursor to leader emergence and effectiveness (Badura et al., 2019), it is crucial to set the course before people begin their careers. Recent research has started to pave the way for understanding how students come to see themselves as (potential) leaders in a classroom setting (Zaar et al., 2020). With this study we complement this emerging stream of research, and reveal the potential of meaningful interactions with significant others (outside the classroom) in bringing out future leader selves in students.

## **6.2 Limitations and Future Research**

This study has limitations we need to consider. First, we measured affective motivation to lead as an attitude, not as actual leadership behavior or pursuit of leadership opportunities. Although the motivation to lead has been shown to be a strong predictor of leader emergence, behavior as well as effectiveness (Badura et al., 2019), we cannot conclude from our findings that the motivation to lead would translate into leader behavior per se. It would be desirable in future research to measure behavioral outcome variables to elucidate the potential impact of future leader selves on leader behavior. In order to clarify causal links future research could apply an experimental design in which a future leader self is primed to explore how this priming affects motivation to lead as well as resulting leadership behaviors. For instance, it would be conceivable to ask individuals to either draw a picture of their hoped-for future leader self or a visualization of their current self in order to prime the two conditions (Strauss & Parker, 2018). Afterwards leadership behavior (e.g., motivating others or setting direction) could be observed in a group discussion setting and objectively rated by scholars that are blind to the study topic.

Second, while our focus was primarily on protégés' underlying psychological processes in mentoring relationships, we did not consider relational dynamics within the dyad. For instance, it

would be fruitful in future research to explore how congruence of protégés' and mentors' affective motivation to lead at the start of the program impacts the formation of future leader selves and further leadership motivation and behaviors at the end of the program. These fit perceptions might facilitate high quality mentoring relationships that are particularly tailored to the protégés' needs (Ragins, 2016). This is in line with emerging theoretical perspectives in mentoring research which emphasize the reciprocal and mutual impact of mentoring (Ragins, 2012). Further, the rising star hypothesis suggests that mentors are more eager to support those individuals that show high leadership potential or motivation right from the start (Singh et al., 2009). It would be fruitful in future research to examine whether these relational dynamics increase the probability that individuals see themselves as (future) leaders, and how the interplay of protégé and mentor characteristics nurtures leadership motivation.

Third, although we demonstrated that formal as well as informal mentoring is conducive to protégés' salience of future leader selves and motivation to lead, these outcomes might be more pronounced in informal mentoring relationships. Based on the naturally occurring attraction and understanding found in informal mentoring relationships, relationship quality, provided mentoring support and resulting benefits are generally greater in informal mentoring (Eby et al., 2013; Ragins & Cotton, 1999). Our sample in Study 1 comprised both formal and informal mentoring tandems and we did not find a relationship between mentoring formality and protégés' leadership outcomes. In Study 2, we specifically examined mentoring dyads in a formal mentoring program and could find effects of mentoring on protégés' salience of future leader self and hence affective motivation to lead. Nevertheless, the potential role of relationship formality in predicting protégés' leadership outcomes warrants future research.

### **6.3 Practical Implications**

As the global demand for leadership is growing, organizations face the critical challenge to build intrinsically motivated leaders (Day & Dragoni, 2015). Our results offer a number of practical

implications in this regard. First of all, our findings show that supportive interactions with an affectively motivated mentor leverage protégés' affective motivation to lead (Joo et al., 2018). This may encourage organizations to implement mentoring as a useful developmental experience in order to enhance leadership motivation. For example, organizations could encourage their members to engage in informal mentoring relationships with influential people around them, or offer formal mentoring programs to give their employees the opportunities to think about and discuss their future self as a leader.

Second, our results suggested that mentoring elicits leadership outcomes only when mentors themselves enjoy leading. Therefore, organizations might pay closer attention to carefully select mentors based on their intrinsic motivation to take on leadership. Further, mentors should be educated about their potential contribution on protégés' salient future selves as leaders. Organizations may train their mentors how they can achieve this, for instance by discussing protégés' leadership aspirations, validating leadership attempts, or by serving as an inspiring role model. This may create a sense of responsibility in mentors in shaping the next line of leaders.

Lastly, at a societal level, we need to consider the timing of leader development initiatives (Avolio & Vogelgesang, 2011; Lester et al., 2011; Lord & Hall, 2005). Our results show that mentoring can be established as an effective leader development instrument way before individuals enter the workplace. Early intervention is especially critical in leader development, as it affects deeper structures of leader development, including mental models of leadership and self-views as a leader, on which subsequent surface structures, such as leadership attitudes and skills, are built later in life (Lord & Hall, 2005). In line with this reasoning, Avolio and Vogelgesang (2011) argue that leadership interventions have a much more profound impact on younger than older participants, since possible selves as a leader have more opportunity to be shaped at an earlier age. Therefore, universities might consider offering mentoring experiences in order to prepare students for the leadership challenges that lie ahead.

## **7. Conclusion**

This research sheds light on why and under which conditions mentoring support fuels protégés' passion to take on the lead. Our results underline that protégés' salient representations of themselves as future leaders explain why mentoring support elicits their motivation to lead. We further highlight the important role of mentors' own intrinsic motivation to lead for understanding under which conditions mentoring can render protégés' future leader selves more salient. From a practical perspective, this research underlines mentoring as an effective developmental tool and offers important insights for organizations which aim to foster their next line of leaders.



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