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"Polychronicity Penalty"

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Abstract

Die vorliegende Masterarbeit untersucht, ob und in welcher Form ein „Polychronicity Penalty“ in der Beurteilung von Professionalität in internationalen Service-Interaktionen besteht. Ausgangspunkt ist die chronemische Unterscheidung zwischen monochronen und polychronen Kulturen sowie deren Verknüpfung mit zeitbezogenen Erwartungen an professionelles Verhalten, insbesondere vor einem monochronen Hintergrund.

In einem Online-Experiment hörten Teilnehmende einen KI-generierten Service-Monolog mit entweder finnischem oder spanischem Akzent und bewerteten anschließend die wahrgenommene Zeit-, Aufgaben und Personenorientierung, sowie die Professionalität des Sprechers.

Die Ergebnisse zeigen für Beobachtende mit monochronem Hintergrund eine signifikante negative Beziehung zwischen wahrgenommener Polychronicity und wahrgenommener Professionalität, was die Existenz einer „Polychronicity Penalty“ empirisch stützt. Gleichzeitig erweist sich eine mehrdimensionale Betrachtung als ertragreicher: Wahrgenommene Aufgabenorientierung und wahrgenommene Personenorientierung sind jeweils eigenständige, positiv mit Professionalität verbundene Prädiktoren, wobei Aufgabenorientierung insbesondere im monochronen Subsample der stärkste Einzelprädiktor ist.

Die Studie zeigt damit, dass zeitbezogene kulturelle Erwartungen bereits in der vorkonfliktiven Phase von Servicekontakten systematisch in Professionalitätsurteile einfließen können. Praktisch unterstreichen die Ergebnisse die Notwendigkeit, Schulungs- und Qualitätskonzepte in international ausgelagerten Call-Centern, um interkulturell reflektierte Professionalitätsmodelle zu erweitern, die sowohl Aufgaben- als auch Personenorientierung berücksichtigen.

1. Introduction

Despite the rise of nationalist and populist movements that publicly challenge immigration and cultural diversity (Aktas 2024), multiculturalism and international service interactions remain integral to the global economy (Gross-Golacka and Martyniuk 2024). The advantages of offshoring and outsourcing, such as cost efficiency and access to specialised labour, continue to drive the relocation of service work to call centres in non-native English-speaking destinations (Forey and Lockwood 2007; Manning et al. 2017). At the same time, anti-immigration discourse can increase public bias toward foreign individuals (Docquier and Rapoport 2025), raising concerns that customers may react more negatively to intercultural service encounters, particularly when employees represent groups targeted by populist rhetoric. This tension is especially critical in call-centre settings, where perceived service quality is closely linked to customer loyalty and long-term brand relationships (Dean 2002; Jyoti et al. 2024; Bourdin et al. 2024). Within this dilemma, accents, as a salient vocal indicator of cultural background, play a crucial role in shaping customer-employee relationships (Bourdin et al. 2024) and have been shown to influence various aspects of consumer behaviour, such as purchase intentions and word-of-mouth recommendations (DeShields Jr and los Santos 2000; Rao Hill and Tombs 2022).

One of the cultural dimensions that may underlie such accent-based reactions is time-orientation, conceptualised in chronemics as the distinction between monochronic and polychronic perceptions and uses of time (Hall 1976; Macduff 2006; Pirlog 2023). Monochronic cultures, such as those of the DACH region and WASP Americans, tend to treat time as a scarce resource that must be scheduled, saved and used efficiently, giving punctuality, deadlines and task completion prime value (van Everdingen and Waarts 2003; Adams and van Eerde 2010). Polychronic cultures, by contrast, prioritise relationships and events over strict adherence to schedules, and tolerate interruptions, multitasking and flexible pacing in interaction (Hall 1959; Trompenaars and Hampden-Turner 1998; Adams and van Eerde 2010). These differing chronemic orientations are a well-documented source of intercultural misunderstanding and conflict, particularly in work contexts in which expectations about punctuality, responsiveness and “efficient use of time” diverge (Macduff 2006; Duranti and Di Prata 2009; Dolzhikova et al. 2021).

In monochronic business environments, these expectations are tightly woven into contemporary definitions of professionalism that emphasise effective time management, punctuality, reliability and focused task performance (Ianniello and Patterson 2025). Professional employees are expected to arrive on time, adhere to schedules, minimise distractions and use meeting time efficiently (Ianniello and Patterson 2025), and deviations from these norms may be interpreted as unprofessional rather than as culturally grounded preferences for relationship-building or flexibility (Adams and van Eerde 2010).

Given the strong links between employee professionalism, customer satisfaction and loyalty in the service sector (Jyoti et al. 2024), such chronemic expectations create the possibility of a “polychronicity penalty”, meaning that observers socialised in a monochronic culture may rate service employees whom they perceive as polychronic as less professional, even before overt conflict arises. Accents may be a key mechanism in this process, because they can trigger cultural stereotypes and expectations about time-use and reliability, potentially activating perceived symbolic and realistic threats as described in threat-based models of intergroup relations (Amichai-Hamburger 2012; Stephan and Stephan 2017).

Despite extensive post-conflict analyses of intercultural misunderstandings rooted in time-orientation, little is known about whether such negative expectations are already present in the pre-conflict phase and how they shape judgments of professionalism in everyday service encounters. To address this gap, the present study examines how observers from a monochronic background in the DACH region evaluate the professionalism of international customer service employees whose accents suggest either a monochronic or a polychronic cultural background. The manipulation checks therefore address how well participants can categorise an accent as coming from a monochronic or polychronic cultural background. The analysis of predicting factors of professionalism evaluations will be focusing on both perceived polychronicity in a unidimensional approach, and its task- and humane-oriented components as individual concepts in a multi-dimensional approach. In doing so, it investigates whether there is a “polychronicity penalty” in perceived professionalism in intercultural call-centre interactions and under which chronemic and gender-related conditions this penalty becomes particularly pronounced.

2. Theoretical Background

2.1. Key concepts and definitions

2.1.1. Service Interaction

For this study, service interactions will refer to customers calling into a call centre. These inbound call centres provide service or information to customers calling in, and account for the majority of outsourced work to non-native English-speaking destinations (Forey and Lockwood 2007). Despite the win-win of providing higher-quality customer service at lower costs, outsourced call centres face complaints about communication skills and rising customer expectations (Forey and Lockwood 2007). Such issues cannot be taken lightly, as the perceived service quality of these call centres is positively related to customer

loyalty towards the organisation that provides them (Dean 2002). A typical call centre interaction can be divided into seven generic stages, each with a specific function (Forey and Lockwood 2007).

It begins with the **opening** stage, in which an appropriate greeting is issued, followed by an offer of assistance (Forey and Lockwood 2007). Following this stage, the **purpose** of the customer's call is identified (Forey and Lockwood 2007). Unlike the previous stage, this stage is optional (Forey and Lockwood 2007). The next obligatory stage is that of **information gathering**, which can also entail checking if the information on hand is correct, asking for clarification, or expressing issues with the information provided (Forey and Lockwood 2007). Stage four is that of **establishing the purpose** of the call by clarifying points, probing for further information, empathising, or apologising (Forey and Lockwood 2007). After having established the purpose, **servicing the customer** can include more empathy and apologies, providing explanations and descriptions, asking for further information, giving good or bad news and agreeing or disagreeing (Forey and Lockwood 2007). Before the last obligatory stage of **closing**, the optional **summarising** can also take place (Forey and Lockwood 2007).

2.1.2. Chronemics

This field encompasses the study of temporal communication, including the organisation and use of time, and how it is perceived and valued by individuals and cultures (Macduff 2006; Pirlog 2023). Time is therefore treated as a dimension of consciousness and a core element of human communication, rather than an absolute, Newtonian framework in which all events happen (Macduff 2006). Variations in the perception of time can influence a variety of day-to-day situations due to the influence and interdependence with human behaviour, as seen in punctuality, willingness to wait, approaches to face-to-face interactions, and reactions to time pressure (Macduff 2006; Pirlog 2023). Intercultural studies have reinforced chronemics by identifying the cultural dimensions of polychronic and monochronic perception and use of time to capture these differences (Macduff 2006). Comprehending these understandings and interpretations of time is significant as they are one of seven aspects of nonverbal communication that differ between actors in intercultural nonverbal communication (Guilherme et al. 2009). Of these seven aspects, chronemics and vocalics are the only ones that are relevant to interactions via the phone, as the other five, namely kinesics, oculesics, haptics, olfactics, and proxemics (Guilherme et al. 2009) require physical presence to be detected. Additionally, differences in chronemics may make an employee appear too hasty or too slow, resulting in an incompetent image of the person (Ketrow 1991). Despite its critical impact on client satisfaction (Ahmed and Bates 2017), chronemics, as a

dimension of nonverbal communication, is understudied (Moore, Hickson, & Stacks, 2014 as cited in Fesharaki 2019), and empirical studies are scarce (Ahmed and Bates 2017).

2.1.3. American Culture

As the United States is a multicultural and multiracial nation of immigrants (Yang 2020), speaking of “the American Culture” may seem counterintuitive. However, one cultural group has managed to establish itself as the dominant ruling class, becoming a cultural force to sweep out any differing cultures and value systems in the name of defending American values (Yang 2020). This cultural group consists of the descendants of British and Northern European immigrants, who have managed to weave their language and religious values into the fabric of the cultural melting pot which is the American society (Yang 2020). As a result, the melting pot doesn’t fuse multiple cultures into one, but rather melts away all but Anglo-centred values (Yang 2020). This dominant cultural group is known as WASP, an acronym for White Anglo-Saxon Protestant (Yang 2020). As a result of this dominance, Americans are lumped together with Europeans when it comes to time-orientation (Moustafa et al. 2005), strongly contrasting the Latin American cultures to the South (van Everdingen and Waarts 2003). Therefore, whenever this paper refers to American culture, without any other addition, it will be referring to the culture and chronemic orientation of WASP Americans (van Everdingen and Waarts 2003).

2.1.4. Professionalism

Professionalism is a multi-faceted concept spread across various dimensions (Carter et al. 2015). The discussion surrounding this term has been centrally built around professionalism in medicine, as it is the dominant profession using it (Martimianakis et al. 2009). Professionals of the medical field have invested considerable energy and resources in an attempt to define, assess and model the concept to ensure it is taught properly (Martimianakis et al. 2009). These efforts towards defining the term are necessary as it is extremely value-laden with built-in expectations relating to the society, institutions, history and the context in which it is discussed (Martimianakis et al. 2009). Due to its highly contextual nature, the meaning ascribed to the term has changed over time, resulting in sociologists examining professionalism in medicine for several decades and through various lenses (Martimianakis et al. 2009).

These lenses lead to individual-based definitions of professionalism on the one side, and society-based definitions on the other (Martimianakis et al. 2009). The former lens attempts to find an objective definition of the term by viewing professionalism as a list of traits and behaviours, governed by a code

of ethics (Martimianakis et al. 2009). Such an individualistic approach to defining professionalism is popular with educators of the field (Martimianakis et al. 2009).

The latter lens, popular with sociologists, focuses on contextual factors and the social role of professionals, seen as a neutral class of experts dedicated to societal well-being rather than self-interest (Martimianakis et al. 2009). Even though this lens draws attention away from individuals' traits and behaviours, focusing on their roles in general, the group of professionals is expected to act in the public interest, resulting in their behaviour and actions being regulated and scrutinised by the public and professional bodies (Martimianakis et al. 2009). Therefore, professional schools are interested in ensuring a lifetime commitment to high standards, a strict code of ethics and professional behaviour (Martimianakis et al. 2009). Unprofessional behaviour by any individual reflects badly on the whole group of professionals, resulting in a loss of public faith and possibly in increased governmental regulation (Martimianakis et al. 2009). Given the systemically relevant function of medical professionals (Kaldewey 2022), expanding the definition of professionalism to include their social role and, by extension, the responsibilities that come with it is logical. However, as this study aims to produce results that are not bound to the medical or any other single industry, the individualistic lens was chosen. As previous findings have found strong evidence for the contextual nature of professionalism, there is currently no framework of professionalism that can be applied in every context (Al-Rumayyan et al. 2017). Aside from the industry, cultural background has been found to add culture-specific elements to the concept (Hafferty 2006; Al-Rumayyan et al. 2017). This also includes the culture of financial compensation and performance evaluation systems for professionals, which in Western societies are primarily based on short-term success (Gerlich 2023). These general incentive structures in Western societies, based on the professional's individual performance within a given timeframe, result in a self-centred view of strategic growth. (Gerlich 2023), strengthening the argument for adopting an individualist lens on professionalism when examining professionals outside systemically relevant industries.

To respect the contextual factors of the term, a contemporary, industry-independent definition was chosen as currently taught by Ianniello and Patterson (2025) in professional education in a Western culture, namely the USA. As said individualistic definition is currently being used in a monochronic culture, its context is congruent with the chronemic cultural context of the participants in the DACH region (van Everdingen and Waarts 2003). Previous studies have also shown that managers in both Germany and the USA have the same attitudes towards strategic growth as impacted by the same systems of performance evaluation and compensation (Gerlich 2023). This definition describes professionalism as the totality of a person's behaviours and attitudes that are viewed by others as professional, making

it a label that one cannot bestow upon oneself (Ianniello and Patterson 2025). Said trait-based, industry-independent definition describes professional employees as trustworthy, competent, respectful, courteous, cooperative, and supportive (Ianniello and Patterson 2025).

When it comes to meetings, professional employees are expected to come prepared and on time and stay focused during the meeting (Ianniello and Patterson 2025). This includes not texting, focusing on a device and not exhibiting distracting behaviours (Ianniello and Patterson 2025). If the meeting is in an online setting, the rules of conduct are expanded to include removing distractions, avoiding interruptions, and muting oneself when not speaking (Ianniello and Patterson 2025). It also states that virtual meeting tools, such as whiteboards and polls, should be used effectively (Ianniello and Patterson 2025). These expansions of the definition of professionalism once again clearly show their monochronic background, as they are all directed towards ensuring an efficient use of the time allocated for the meeting and its agenda.

2.2. Relevant theories and models

2.2.1. Time-Orientation by Edward T. Hall

The use of time as described by Hall (1959; 1976) influences a person's everyday behaviour as a silent language, which has become especially relevant due to the global economy and international business ventures bringing many occasions for people who were socialised into different cultures to develop interpersonal relationships (Brislin and Kim 2003). These differences in the temporal scale can cause significant misunderstandings when intention and action are judged based on a different time-orientation (Bluedorn and Kaufman-Scarborough 1992). The potential for such misunderstandings is especially pronounced in a work context as variations in the time-orientation directly relate to a stronger focus on tasks or on human relationships (Bluedorn and Kaufman-Scarborough 1992; Adams and van Eerde 2010; Pirlog 2023), leading to a prioritisation of task completion and efficiency in task-oriented individuals, and a focus on long-term partnerships and trust building in relationship-oriented individuals (Zepeda and Lamino 2026).

Monochronic cultures, the most prominent being the cultures of the DACH region (van Everdingen and Waarts 2003), prioritise the former (Bluedorn and Kaufman-Scarborough 1992; Adams and van Eerde 2010; Pirlog 2023). Members of these cultures tend to consider time as an asset to be spent or saved (Hall 1959; Trompenaars and Hampden-Turner 1998; Hofstede 2001; Adler 2001; as cited in Moustafa et al. 2005). Consequently, *time is money*, and *the clock never stops ticking* are considered

golden rules, and these cultures emphasise the future, and planning for it (Adams and van Eerde 2010). Hence, scheduling and deadlines are of high priority (Adams and van Eerde 2010) while time is ordered “efficiently”, giving punctuality prime value (Macduff 2006). This prioritisation also encompasses such aspects as promptness and adherence to schedules in communication, which is viewed more fluidly in polychronic cultures (Holtbrügge et al. 2013). Said approach to communication has been found to be true for both traditional communication, and Email communication, despite the fact that the latter is seen as enabling multi-communication and multitasking, which is an important dimension of polychronicity (Holtbrügge et al. 2013).

Monochronic cultures interpret punctuality as a demonstration of respect and reliability, whereas latecomers are viewed as unprofessional due to them wasting time, which is seen as a non-renewable resource, of those who are waiting (Ianniello and Patterson 2025). As a result, some teams in monochronic cultures, such as that of WASP Americans (van Everdingen and Waarts 2003), may have penalties for latecomers, such as singing a song or contributing to a pizza party fund (Ianniello and Patterson 2025). In these cultures, activities are sequenced, and multitasking is discouraged (Adams and van Eerde 2010). Unplanned events, such as a spontaneous phone call, are considered interruptions which should be kept to a minimum and integrated into the schedule at a later time (Bluedom and Kaufman-Scarborough 1992). In general, interactions with people within the context of work tend to be limited to tightly scheduled meetings, sessions and appointments, in which only the job itself is discussed and no time is wasted (Adams and van Eerde 2010). Some teams in monochronic cultures may even appoint a time-keeper to ensure participants stay on task (Ianniello and Patterson 2025). As a result, putting family needs on the back burner while giving work first priority is seen as understandable by others, just as enforcing deadlines (Duranti and Di Prata 2009).

Polychronic cultures consider relationships and events as a priority over deadlines and punctuality (Hall 1959; Trompenaars and Hampden-Turner 1998; Moustafa et al. 2005). This prioritization is seen as vital to ensure continuous smooth relations, which are essential to the functioning of, for example, Latin culture, which includes Latin American cultures as the strongest examples of polychronicity (Poposki et al. 2009). These cultures emphasise the importance of high attention to people, which are not to be ignored or scheduled (Adams and van Eerde 2010). However, this is not socialising in the true sense, but rather a cultural recognition of the importance of people, which should be attended to despite the interruption of arriving at an unscheduled moment or with an informal reason (Adams and van Eerde 2010). This is especially true for interruptions by friends, family or superiors (Adams and van Eerde 2010).

Through this accommodation of distractions and avoidance of scheduling people, a general lack of planning can be observed in these cultures (Adams and van Eerde 2010). Such flexibility is necessary to ensure that harmony is maintained in the relationship, and to satisfy the anxiety and curiosity to find out what people require, no matter when they arrive (Adams and van Eerde 2010). Waiting times that result from the lack of punctuality are not perceived as harmful to harmonious relations, as time is not necessarily seen as definite, or even as ending with death in the case of for example India (Moustafa et al. 2005). Polychronic cultures respect that important things take time, making deadlines and a rush to finish something an indication of the unimportance of the task (Moustafa et al. 2005). Waiting time is therefore a function of importance in Brazil and even seen as controlled by “the will of God” in the Middle East (Moustafa et al. 2005). The Western obsession with time as a finite resource can therefore be confusing and insulting to those with a different temporal view (Moustafa et al. 2005), especially when it results in an insistence on punctuality and deadlines at the cost of smooth personal relations (Adams and van Eerde 2010). Cultures that do so can be perceived as unpleasant, inflexible and intrusive (Adams and van Eerde 2010). Punctuality is therefore not irrelevant in polychronic cultures, but it is in competition with a number of cultural values, such as relationships, hierarchy and obligations, while managing multiple activities and interchangeable sequences (Macduff 2006).

The frequent interruptions caused by the polychronic flexibility do not just imply a shift of focus, but may also result in an entirely new matter, preventing the return to the original task (Adams and van Eerde 2010). The resulting tendency to multitask is a central aspect of polychronicity, reflected in the definition of the non-cognitive variable by Poposki et al. (2009) as "an individual's preference for shifting attention among ongoing tasks, rather than focusing on one task until completion and then switching to another task".

Task-Orientation	Humane/Relationship/People-Orientation
Predominant in monochronic cultures (Adams and van Eerde 2010)	Predominant in polychronic cultures (Adams and van Eerde 2010)
Prioritises task completion (Macduff 2006)	Prioritises long-term partnerships , trust building (Zepeda and Lamino 2026), and smooth relations (Adams and van Eerde 2010)
Unplanned events are seen as interruptions to be minimised and handled later (Bluedorn and Kaufman-Scarborough 1992)	People are not to be ignored or scheduled , making interruptions more acceptable (Adams and van Eerde 2010)
Work interactions are tightly scheduled and focus on the job itself (Adams and van Eerde 2010)	Interactions are more people-centred and less restricted by rigid scheduling (Adams and van Eerde 2010)
Often, one thing is done at a time, with clear separation between task and social time (Guilherme et al. 2010)	Multiple activities and social interaction can occur together more naturally (Guilherme et al. 2010)
Time is ordered efficiently , with punctuality as a prime value (Macduff 2006)	Flexibility is valued to maintain harmony in relationships (Adams and van Eerde 2010)

Figure 1: Task-orientation vs Humane-orientation

2.2.2. Gender Identities

According to Wood and Eagly (2002; 2012) sex differences are bio-socially constructed, meaning that they are the result of both observed biological differences between the genders, such as women's reproductive capabilities and men's greater physical strength, and perceived differences in terms of the economy and social structures. From the interaction of these biological and social factors, distinct gender identities are formed, which include distinct self-characterisations (Obioma et al. 2022). Said self-characterisations have been found to often parallel gender stereotypes (Obioma et al. 2022). This parallel can be linked to stereotypes being internalised, leading to their application to oneself (Obioma et al. 2022).

When describing such gender stereotypes, the big two that have long been used are agency and communion (Obioma et al. 2022). The former is primarily associated with men, whereas the latter is

primarily associated with women (Eagly et al. 2020; Obioma et al. 2022). Men are therefore associated with the agency attributes of being assertive, competitive, ambitious and independent, whereas women are linked to communal attributes such as being compassionate, warm, understanding, communicative, emotional, cooperative and modest (Eagly et al. 2020; Obioma et al. 2022). Such associations can be linked to traditional gender roles, with women being the primary caretaker and men being the breadwinner (Obioma et al. 2022). According to social role theory, observing men and women occupy certain roles in society leads to gender stereotypes connected to the characteristics of these roles being formed (Obioma et al. 2022). If men and women are therefore visible in society performing distinct roles which are associated with specific characteristics, such as leadership or caregiving, people would infer that the characteristics differ between genders (Obioma et al. 2022). According to this theory, the difference in associated characteristics would therefore erode if men and women were to occupy the same societal roles (Obioma et al. 2022).

With the social roles of men and women shifting since the mid-20th century, female and male labour force participation has converged considerably in many nations, such as the USA (Eagly et al. 2020). However, social roles still differ amongst genders, with the common neotraditional division of labour leaving women with the majority of the domestic work, whereas men are more often in continuous employment with longer hours and better wages (Eagly et al. 2020). Therefore, women are, despite changes in household patterns, the main carriers of the double burden, acting as employees and the primary carriers of responsibilities regarding childcare and household tasks (Nilsen et al. 2017). Additionally, occupational sex segregation enforces such stereotypes due to the increased concentration of women and men in occupations requiring different skills while facilitating different personal goals (Eagly et al. 2020). Women are therefore found more often in occupations requiring social skills while holding opportunities for social contribution and workplace flexibility (Eagly et al. 2020). Male representation in occupations was predicted by the need for analytical, technical and mathematical skills, in addition to requirements regarding physical strength, interaction with things and competition (Eagly et al. 2020).

Even with the desegregation of the labour force, mainly following educated women entering male-dominated professional and managerial occupations, the emergence of female-dominated subfields led to an internal resegregation, replicating macrolevel themes by creating female specialisations, such as gynaecology and paediatrics in medicine and public relations and human resources in management (Eagly et al. 2020). Following this continued occupational segregation, clustering women in communal roles, and the uneven division of domestic work and wage labour between women and men, gender

stereotypes persist despite substantial egalitarian changes in employment and education (Eagly et al. 2020).

Aside from this horizontal segregation of the genders, in which men are the family's main provider, working in an occupation requiring robustness, physical prowess and competitiveness, whereas women act as the family's main homemaker while working in an occupation requiring social skills, gender stereotypes are enforced by vertical segregation (Eagly et al. 2020). Said segregation is based on more men than women occupying positions with higher pay and authority, furthering the stereotype of men's agency (Eagly et al. 2020). Despite the persistence of these segregations, there is a lack of conscious awareness regarding the extent of sex segregation of the labour force (Eagly et al. 2020). Women are therefore assumed to have substantial choice regarding which occupation they pursue, contrasting the earlier domestic role, which seemed obligatory, leading to an increase in communal stereotypes (Eagly et al. 2020). The perceived link between women and communal values doesn't just exist in the minds of men, but has also been revealed to be embedded in women's self-images (Obioma et al. 2022). As a result, despite changes in occupational sex segregation, women's communion remains the strongest gender stereotype, making it the most noticeable quality differentiating men and women (Eagly et al. 2020).

2.2.3. Stereotypes

"Stereotype" nowadays refers to an image of a given social group that is readily available and usually based on rough, often hostile generalisations (Maftuh et al. 2025). Said generalisation of groups or people is derived from past experiences deeply rooted in a person's or people's psyche (Maftuh et al. 2025). Such images can relate to both other groups, making them hetero stereotypes, or they can relate to oneself, making them auto stereotypes (Maftuh et al. 2025). Cultural stereotypes belong to the former category and are created by applying both our existing beliefs about the members of cultural groups, as well as evidence (Maftuh et al. 2025). The images employed in stereotyping are therefore not always accurate in reality (Maftuh et al. 2025). Aside from the strongly varying degree of possible accuracy, stereotypes can also take various forms in terms of positivity and negativity (Maftuh et al. 2025). Stereotypical perceptions may include a variety of characteristics, some relating to physical appearance, and others to expected behaviours and traits (Amichai-Hamburger 2012). However, people are usually unaware of their activation of stereotypical imagery, making it particularly difficult to combat the resulting attitudes and behaviours (Amichai-Hamburger 2012).

One of the bases for the tendency to use stereotypes is the homogeneity effect, which states that people generally assume that their own group, known as the ingroup, is a heterogeneous one, whereas the other group, known as the outgroup, consists of similar members (Amichai-Hamburger 2012). In addition, the perception that the ingroup and outgroup share no similarities leads to a total “us versus them” (Amichai-Hamburger 2012, p. 209), which enhances stereotypical perceptions (Amichai-Hamburger 2012).

Said stereotypes of the outgroup are not fixed, but can be changed, for example, in response to perceived intergroup threats, amplifying cognitive biases in intergroup perceptions (Stephan et al. 2015). Such threats in intercultural interactions are not limited to fears of tangible harm, called realistic threats, but can also take the form of symbolic threats (Stephan and Stephan 2017). Realistic threats include the potential for experiencing negative psychological outcomes, such as negative emotions like embarrassment, frustration, confusion and the feeling of being perceived as prejudiced, but also the possibility for such outcomes as economic loss, theft, discrimination or aggression (Stephan and Stephan 2017).

Symbolic threats are related to fears of intangible harm (Stephan and Stephan 2017). This may include threats to both validity and integrity of the meaning systems essential to cultures, including the people’s dearly held cultural values, beliefs, norms and morals (Stephan and Stephan 2017). Such a symbolic threat is created simply by the existence of other cultures, as the differing systems of meaning may be perceived as challenging the validity of the ingroup’s cultural meaning system (Stephan and Stephan 2017). Both realistic and symbolic threats are relevant to intercultural interactions due to their largely destructive effect, even if the perceptions of threats are never fulfilled (Stephan and Stephan 2017). Although the perception of threat increases with the population size of the outgroup, threats can be perceived on both sides of the intercultural interaction, even if there is a large perceived power difference between the groups (Stephan and Stephan 2017). Perceived threats can also be influenced by barriers to communication, caused by, for example, cultural and linguistic differences, such as strong accents or poor English skills (Stephan and Stephan 2017). The perceived threats arising from such factors as differences in cultural value dimensions and negative cognitions, such as stereotypes, affect the emotional, cognitive and behavioural responses in intercultural interactions, which in turn shape intercultural experiences, potentially creating new perceived threats and therefore impacting the perception of the outgroup (Stephan and Stephan 2017).

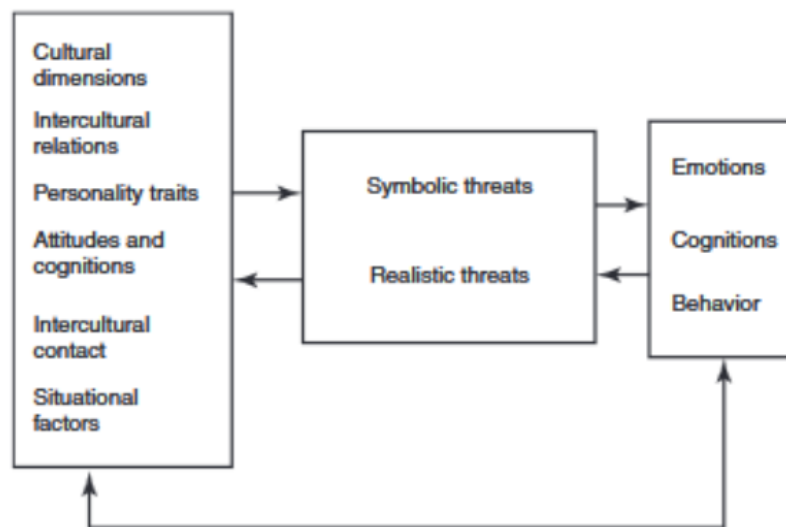


Figure 2: Threat model (Stephan and Stephan 2017)

One such cognitive response to alleged threats is the potential for changes in attributions related to the behaviour of the outgroup (Stephan et al. 2015). As a result, the occurrence of the attribution error may increase (Stephan et al. 2015). Member characteristics are therefore more often used to explain negative acts of the outgroup, and positive acts of the ingroup, whereas positive acts of the outgroup, and negative acts of the ingroup, are likely to be attributed to the situation (Stephan et al. 2015). This can further increase perceived outgroup homogeneity and the chance of perceiving threat-related emotions in others (Stephan et al. 2015). The impression of being part of a threatened cultural group can also lead to increased boundary maintenance activities and punitive actions towards deviants, leading to the highlighting of cultural differences and the careful stipulation of ingroup membership criteria (Stephan and Stephan 2017).

In addition, the confirmation bias reduces the chances of stereotypes and negative attributions being reduced, as people tend to search for and pay more attention to information confirming their preconceived notions, while disregarding information in conflict with these perceptions (Amichai-Hamburger 2012). Stereotypes can therefore persist even after interacting with outgroup members, also due to them acting as self-fulfilling prophecies (Amichai-Hamburger 2012). Said effect can be caused by people behaving in line with their negative preconceived perceptions when encountering the outgroup, while ignoring the actual behaviour displayed by the other (Amichai-Hamburger 2012). The resulting negative approach towards the other may therefore lead to them responding in accordance with negative stereotypical expectations, thus providing the ingroup with evidence of the initial negative assumptions

being correct (Amichai-Hamburger 2012). The behaviours based on these effects can subsequently result in a closed cycle of negative conduct (Amichai-Hamburger 2012; Stephan and Stephan 2017), potentially turning stereotypes into self-fulfilling prophecies (Amichai-Hamburger 2012). These negative experiences, in turn, further increase people's perceptions of threat (Stephan and Stephan 2017).

2.3. Previous empirical findings

2.3.1. Polychronicity in women

Szameitat and Hayati (2019) discovered significantly increased scores of polychronicity in women compared to men. Aside from the comparatively higher theoretical preference of women for multitasking, findings from the United Kingdom also suggest that women spend more time multitasking (Szameitat and Hayati 2019).

2.3.2. Intercultural Conflict

This potential for intercultural conflict has been explored both in theory and in practical application by a multitude of scholars (Bluedorn and Kaufman-Scarborough 1992; Adams and van Eerde 2010; Guilherme et al. 2010; Dolzhikova et al. 2021; Pirlog 2023; Duranti and Di Prata 2009). Turner et al. (2022) describe the potential for such conflict by illustrating the situation of a monochronic person attempting to do business in a polychronic culture. Said person has certain expectations about the punctual start of meetings, the focus being put on the task at hand and the regimented manner in which work is approached in order to complete it by the established deadline (Turner et al. 2022). The potential for intercultural conflict arises as the members of the polychronic culture do not bring the same expectations to the encounter (Turner et al. 2022), which could lead the monochronic person to feel insulted when they are kept waiting (Moustafa et al. 2005). Duranti and Di Prata (2009) expand on this potential for conflict by detailing the story of a theoretical British businessman on a tight schedule who is trying to secure an important deal in Saudi Arabia. As he cannot afford to waste time, his frustration increases due to long waiting times, and when the appointment does eventually start, it is frequently interrupted by people coming in and even by the Saudi partner taking a call while the visitor is in the room (Duranti and Di Prata 2009).

Aside from delays, such time conflicts can also occur in the opposite direction, as shown by Duranti and Di Prata (2009) in the real-world example of a British visitor in Malaysia who had scheduled an

appointment for ten in the morning, only for his driver to call at 8:30 AM as he had decided to start the day early due to the sunny weather. Instances of differences in time perception can be observed not only when one party has travelled to another country, but also when different subcultures clash within a society. Duranti and Di Prata (2009) detail these differences by describing the “talking stick” meetings as practised by the polychronic Aboriginal and Native American cultures. Such meetings can last as long as somebody has something to say (Duranti and Di Prata 2009), showing a clear break with the scheduled and task-oriented nature of meetings in the monochronic culture of Americans. A real-world conflict created from the clash of the native subculture and the dominant culture was recorded in a factory in Alaska, where native workers could not accept the factory whistle announcing their breaks, as the nature-bound native culture is based around the tides, which determine their activities (Duranti and Di Prata 2009). Other recorded examples of cultural clashes due to miscommunication of clock-time vs event-time include simple situations such as major delays on dinner plans (Macduff 2006), but also the case of foreign students from polychronic cultures arriving late to class every day without an explanation or apology (Dolzhikova et al. 2021). How strongly the perception of time commitment differs becomes especially clear in the example of Germans working in Honduras who complained about the local workers coming half an hour too late every day, only to be met with the statement that it is exceptional in itself that they came at all (Duranti and Di Prata 2009).

Perceived failure of societal commitment can also go the other way, especially when it comes to relationship building. Aside from the conflicts that may arise when monochronic cultural members are willing to harm relationships to keep deadlines (Adams and van Eerde 2010), the cultural connotation of gift-giving can also vary substantially (Mugambimbe et al. 2012). Gift giving in business relationships is a common practice in polychronic cultures and has the effect of capturing the attention of those in authority in order to seek favours, or as a means of sealing deals given in anticipation of favours to come (Mugambimbe et al. 2012). By not engaging in such gift-giving practices, members of monochronic cultures lose the advantages of relationships created by the cultural practice of gift-giving in polychronic cultures. These lost opportunities for generating goodwill add to the potential for negative judgment based on differences in the underlying cultural perceptions of time, as expressed in behaviours such as timekeeping, task completion, punctuality and prioritisation of tasks and relationships (Macduff 2006).

These cultural perceptions and the resulting attitudes towards the usage of time have also been linked to the pace of a conversation, as the apparently available time, as blocked in the schedule, is used for activities which can be perceived as irrelevant or extraneous, such as social conversations or meals, the priority of which strongly varies depending on the chronemic background of the participants (Macduff

2006). An example of potential judgments resulting from the different prioritizations of relationship building was documented by Macduff (2006). In an international student negotiations competition, a judge was surprised by the amount of relationship building done by a team of Asian students, and questioned if this indirect approach did not result in a less efficient negotiation (Macduff 2006). Macduff (2006) links such incompatible expectations about the best use of time, resulting in differences in attitudes towards how to run a meeting efficiently, to an additional need for negotiation about time itself, creating an implicit or unconscious source of conflict and increasing the potential for negotiations to fail. The effect of this unconscious conflict about the best use of time can reach as far as a person's discomfort with silences in an interaction (Macduff 2006). Accepting a pace of the conversation that is slower than expected, rather than moving along in a timely manner to ensure efficiency, may be hard depending on the chronemic background, leading to the need to fill such apparent gaps with unnecessary rambling and further explanations (Macduff 2006). An example of this can be seen when negotiating with somebody from the Pacific Islands, where following a suggestion with silence is an indication of it being considered, and therefore is a sign of respect for the counterparty (Macduff 2006).

Mugambimbe et al. (2012) expand the fallout of the intercultural conflict to a societal level in the case of Northern Nigeria. Expats trying to complete projects with workers from the Hausa group, one of the two largest ethnic groups in Nigeria, complained about the chaotic manner in which they approached work, filled with breaks, absences based on family commitments, unpunctuality and even not keeping appointments at all (Mugambimbe et al. 2012). Such behaviour was perceived as disrespectful and annoying by Westerners, especially since it prevented the projects from being completed in time, resulting in loss of money and business opportunities (Mugambimbe et al. 2012). In addition, Mugambimbe et al. (2012) link this conflict to broader issues in Nigerian society. They argue that time perceptions, through their subliminal connection to the construction of relationships and self-images (Macduff 2006) can result in a perceived threat to a person's religion and identity. This perceived threat is based on the clash of Christian expatriates, requiring Muslim workers to report to work on time and to follow the monochronic time system (Mugambimbe et al. 2012). Mugambimbe et al. (2012) connect such intrusive outside pressures to the group's cultural boundaries with a reassertion of traditional beliefs and resistance to change, resulting in violent protests between Christians and Muslims, as seen in Nigeria (Mugambimbe et al. 2012).

2.4. Relevance and research objective

2.4.1. Polychronicity in monochronic professional conduct

The existing literature demonstrates the large conflict potential created by varying time-orientations, especially in the context of business interactions (Macduff 2006; Duranti and Di Prata 2009; Christopher 2012; Dolzhikova et al. 2021). Why differences in time-orientation are so emphasised in a business setting can be partially traced to its strong relation to what is taught to be “professional behaviour” before a monochronic cultural background. Set before the assumption of time being a non-renewable resource, the monochronic definition of professionalism includes a large emphasis on “ensur[ing] you make the most of your and others' time at work” (Ianniello and Patterson 2025, p. 248), making traits like punctuality a demonstration of respect and reliability (Ianniello and Patterson 2025). Furthermore, meetings are conducted in a way that ensures the efficient use of time by staying focused on the task and reducing any distractions or interruptions (Ianniello and Patterson 2025). As demonstrated in the literature on intercultural conflict, this focal point of monochronic professionalism overlaps with a common area of conflict. The polychronic preference for people over tasks and schedules (Adams and van Eerde 2010) holds the potential for many behaviours that would be simply misread as unprofessional from a monochronic view. Being unpunctual, interrupting a meeting to tend to somebody else or spending time scheduled for a specific topic on personal conversations can all be viewed as a breach of monochronic professional conduct (Ianniello and Patterson 2025), rather than being based on a different cultural system of prioritisation (Adams and van Eerde 2010). There might therefore be a “polychronicity penalty” in perceived professionalism, as such behaviours and the expectations related to them could be explained from a monochronic view as an inability to fulfil the central requirements of professional conduct.

2.4.2. Polychronicity perceptions in pre-conflict

With differences in the perception of time being the cause for so many instances of intercultural conflict (Macduff 2006; Duranti and Di Prata 2009; Christopher 2012; Dolzhikova et al. 2021), it can be assumed that this cultural dimension is regularly connected to both perceived symbolic and realistic threats in intercultural interactions. In the case of the former threat, a person from a monochronic culture may perceive a polychronic person's lax approach to, for example, punctuality, which is given prime value

in monochronic cultures (Macduff 2006), as a challenge to the validity of their cultural meaning system (Stephan and Stephan 2017). Resulting frustration and other negative emotions, potentially amplified by actual conflict, would then result in a realistic threat (Stephan and Stephan 2017). With both types of threats present, it is likely that attitudes and cognitions, and therefore stereotypes, towards members of the outgroup, will be impacted, amplified by the fact that threats increase the already present homogeneity effect (Stephan and Stephan 2017) and the chances for the attribution error to occur (Stephan et al. 2015; Stephan and Stephan 2017). The attribution error and homogeneity effect hence ensure that negative experiences and perceived threats affect the cognitions towards the outgroup as a whole (Amichai-Hamburger 2012). Additionally, the confirmation bias strengthens any stereotype for which there appears to be evidence (Amichai-Hamburger 2012), leading to the assumption that differences in cultural dimensions that are so often at the heart of conflict and perceived threats, as is the case for time-orientation, have been incorporated in stereotypes and cognitions towards the outgroup, most likely in the form of negative generalisations concerning said outgroup. Such stereotypes would in turn act as self-fulfilling prophecies, as the cognitions affect the behaviour towards the outgroup, increasing the chances of them acting in accordance with ingroup-expectations, while disregarding evidence of the contrary (Amichai-Hamburger 2012).

As these mechanisms support the creation and perseverance of stereotypes which appear to be backed by evidence (Amichai-Hamburger 2012), especially when related to perceived threats (Stephan and Stephan 2017), for example, in common intercultural conflict situations, it can be assumed that individual negative cognitions based on conflict experiences can accumulate, therefore impacting the generalisation of the outgroup within the ingroup. Expectations about conflicts based on differences in time-orientation could therefore already exist pre-conflict, exemplifying a closed cycle of negative conduct. Such expectations might include potential conflicts arising from differences in how time is managed, interruptions, and the most effective use of time. With the basis of such conflict expectations being strongly related to many aspects of the monochronic view on professionalism (Ianniello and Patterson 2025), people socialised in a monochronic culture may therefore have decreased expectations of professionalism when encountering a person from a polychronic culture compared to someone from another monochronic culture.

Such a penalty in the perception of professionalism in employees could have a major impact on a business, due to the positive influence of employee professionalism on customer satisfaction and loyalty, which are both especially crucial for being successful and maintaining a strong brand presence in the service industry (Jyoti et al. 2024). A strong brand presence and customer loyalty can reduce the costs attached to acquiring new customers, which tend to be quite high (Jyoti et al. 2024). Additionally,

customers who perceive service employees as professional are more likely to overlook service failures (Jyoti et al. 2024).

Despite this potentially large impact on intercultural service interactions, there has been no attempt to examine whether negative sentiments based on perceived differences in time-orientation already exist pre-conflict, reducing perceived professionalism in the other party and possibly creating a self-fulfilling prophecy of conflict. To close this gap, this study will examine the relationship between perceived polychronicity, and professionalism as perceived by an observer from a monochronic background. It will therefore inspect the possibility of a “polychronicity penalty” in the assessment of professionalism in service employees from other cultures, addressing the question:

Do people from a monochronic background rate speakers perceived as polychronic as less professional in international customer service encounters?

2.5. Derived hypotheses

With the polychronic prioritisation of relationships over task completion (Zepeda and Lamino 2026) presenting a theoretical opposition to what is considered to be professional conduct in monochronic cultures, mainly related to time-management aspects, such as punctuality and what is considered efficient usage of time (Ianniello and Patterson 2025), it is reasonable to assume that perceived polychronicity would decrease perceptions of professionalism from the view of an observer embedded in a monochronic culture, even before actual conflict arises. The first hypothesis for this study to inspect is therefore:

H1: Higher perceived polychronicity in a speaker is associated with lower perceived professionalism among observers with a monochronic background.

This Hypothesis will be tested under two assumptions. The first being the assumption of homogeneity of variance for the relevant variables between the accent groups. This assumption is expressed in the first null-hypothesis:

H0a: The variances of the Finnish and Spanish groups are equal for perceived polychronicity, perceived task-orientation, perceived humane-orientation and perceived professionalism.

The second assumption is that there is no direct bias of participants against members of the speaker's assumed country of origin. The null-hypothesis, therefore, states:

H0b: There is no significant direct influence of the speaker's assumed origin on perceived professionalism in the sample.

Due to the difference in polychronicity scores between men and women, as found by Szameitat and Hayati (2019), combined with their findings that women in the monochronic United Kingdom spend more time multitasking, it is likely that gender will moderate the relationship detailed in H1. This argument is further supported by the possibility of internalised gender stereotypes perpetuating the idea that women have a stronger relation to communal attributes, such as being compassionate, cooperative and warm (Eagly et al. 2020; Obioma et al. 2022). As the segregation and resegregation of the labour market has resulted in women fulfilling a disproportionately high percentage of positions requiring social skills, while offering opportunities for workplace flexibility and social contributions (Eagly et al. 2020), the argument for women, who have internalised these observations of discrepancies in social roles, being more open to the people-orientation and flexibility of polychronicity is further strengthened. The assumed influence of gender is therefore captured in Hypothesis 1a:

H1a: Gender has a moderating effect on the relationship between perceived polychronicity and perceived professionalism.

As the root of the theoretical conflict between monochronic professionalism and polychronicity can be seen in the lower cultural prioritisation of task-orientation, resulting in the usage of time in ways deemed inefficient or wasteful from a monochronic point of view, items related to this orientation should be the driving force behind the relationship detailed in Hypothesis 1. As pretests of internal reliability raised some concerns when using a unidimensional approach, with monochronic task-orientation being at the other end of the spectrum and therefore in a trade-off relation with polychronic humane-orientation, a multi-dimensional approach was chosen to examine the function of the individual orientations. This shift abandoned the previously assumed trade-off relation between the constructs. Therefore, when switching to a multidimensional approach, the effect of task-orientation on perceived professionalism should be as follows:

H2: Higher perceived task-orientation in a speaker is associated with higher perceived professionalism among observers with a monochronic background.

Following this hypothesis and the theoretical treatment of humane-orientation as the opposite of task-orientation, the preference for people over tasks should have a negative effect on professionalism as perceived by a monochronic observer. However, even as a standalone concept, the polychronicity items related to humane-orientation, namely the cognitive flexibility of being open to interruptions and switching between tasks necessary for allowing unscheduled arrivals and requests, should run counter to the monochronic aversion for interruptions in a professional context. Accordingly, both from a unidimensional and a multi-dimensional perspective, the assumed influence of humane-orientation on monochronic professionalism should be as follows:

H3: Higher perceived humane-orientation in a speaker is associated with lower perceived professionalism among observers with a monochronic background.

With concerns of internal reliability in regard to perceived polychronicity pushing towards a multi-dimensional approach that treats task-orientation and humane-orientation as separate constructs with differing cultural prioritizations, rather than being two ends of the same spectrum and therefore in a trade-off relation, the assumption follows that these concepts would affect perceived professionalism independently from each other. To test this assumption, and the usage of a multi-dimensional approach in general, the final main hypothesis states:

H4: Perceived task-orientation and perceived humane-orientation function independently in predicting perceived professionalism.

After having distilled the significant cultural elements of time-orientation influencing perceived professionalism, the null-hypothesis will be retested to ensure that no bias can be found even after accounting for the relevant cultural factors. Because it has the highest predictive power, and the highest internal reliability of employed constructs, the combined model of task- and humane-orientation will be used to reexamine the potential for country bias in the sample. Therefore, the final hypothesis is:

H0c: The influence of speaker origin on perceived professionalism remains insignificant after accounting for task- and humane-orientation.

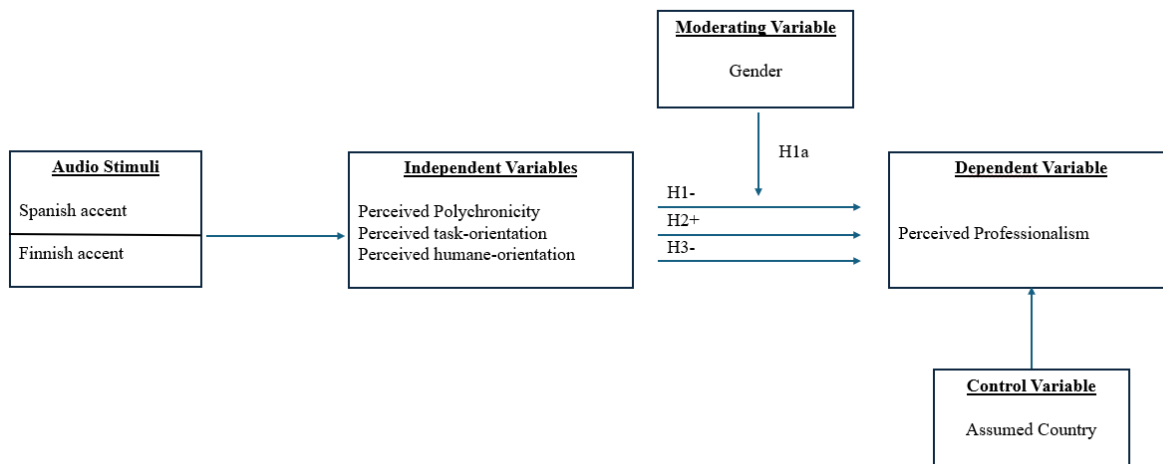


Figure 3: Conceptual Framework

3. Methodology

3.1. Research design

This study employs a quantitative, cross-sectional research design with an experimental between-subjects vignette approach embedded in an online survey. The design is explanatory in nature, aiming to test theoretically derived hypotheses about a potential “polychronicity penalty” in perceived professionalism in intercultural customer service encounters, rather than to explore the constructs inductively. To this end, participants from a monochronic cultural background in the DACH region were randomly assigned to one of two audio conditions that differed only in the speaker’s accent, representing either a polychronic or a monochronic chronemic background, and were then asked to evaluate the speaker and the interaction.

The main independent variables are perceived polychronicity and, in a multidimensional extension, its task-oriented and humane-oriented components, while their effect on perceived professionalism of the speaker is the main target of analysis. Gender is examined as a potential moderator, and participants’ own cultural affiliation as well as the assumed country of origin of the speaker are included as additional variables to control for influencing factors.

3.2. Data collection

3.2.1. Audio Stimulus

To elicit the image of a speaker with a monochronic or polychronic cultural background, the study employed one of two audio vignettes. The first vignette used a speaker with a Spanish accent, therefore representing somebody with a polychronic cultural background (van Everdingen and Waarts 2003). Though a Spanish accent might also trigger the image of a Latin American speaker, the fact that these cultures are even more polychronic than the Spanish culture (van Everdingen and Waarts 2003) ensures that the results are still relevant to the study. For the monochronic accent, a Finnish accent was chosen. This choice is based on the fact that Scandinavians and Finns form the third most monochronic cultural group. The only groups higher in monochronicity are the cultures of the DACH region, which could not be used due to the participants being from this region, and WASP Americans (van Everdingen and Waarts 2003), which might create a bias in perceived professionalism due to their being native English speakers. The vignettes were created using the text-to-speech AI tool created by ElevenLabs. For the Finnish vignette, the professional voice clone “Matti” was used. For the Spanish vignette, a custom voice clone was created using the prompt “create a customer service representative with a strong Spanish accent”. The resulting voice clone can be replicated using the voice ID `ib4sYRSQMcGEXplwmXOr`. The content of the vignettes was modelled after the generic stages of a call centre discourse as described by Forey and Lockwood (2007). Due to the one-sided nature of the presented customer service interaction, the optional stages and the closing stage were omitted to simulate an extensive start to the conversation. For the content of the opening stage Woydack and Lockwood’s (2021) campaign script outline was adapted. The stage of gathering information focused on checking if the information was correct by repeating what the customer service representative had received in advance from the customer’s interaction with the hypothetical AI phone assistant. The next stage of establishing purpose was touched upon by offering a discount to probe for a potential interest in remaining a customer. Lastly, the stage of servicing the customer was represented by the customer service representative explaining the cancellation process should the customer reject the offer made in the previous stage. The content of the last stages was based on Stock et al.’s (2022) examples of applying standard functions in call centre sales negotiations. As a result, the content of the audio vignette was as follows:

Good afternoon, this is the customer service hotline. I’m sorry to hear that you want to cancel your subscription. Of course, we don’t want to lose you as a customer. So that you don’t cancel, I could offer that you receive another 8 months but only pay for 6. Then you will have two full months free of charge.

If this doesn't interest you, I will use your email address to send you the cancellation confirmation. I think it would take 48 hours at the latest.

3.2.2. Questionnaire

Introduction

The questionnaire was created using SoSci Survey and consisted of four main sections. It started with a general introduction informing participants about the confidential, anonymous use of their data, noting that there are no wrong answers and therefore encouraging them to answer spontaneously and honestly. This introduction also incorporated contact information in case any questions arose, and informed participants about the estimated length of five minutes, the inclusion of an audio clip, the broad topic of perceptions of customer service interactions and the participation restriction of living in the DACH region, including a summary of the countries of this region. The survey was conducted in English, despite the limitation to the DACH region, to ensure that the audio clips mimicked a common international service interaction. After having acknowledged this information, participants were given one of two randomised audio clips to listen to, with one representing a polychronic culture by employing a Spanish accent and one representing a monochronic culture by employing a Finnish accent.

Section 1: Speaker Chronemics

After having listened to one of the audio vignettes, the first section of the questionnaire is displayed. This section is dedicated to establishing how the participants estimate the speaker's placement on the spectrum of time-orientation. It consists of six items in random order dedicated to the various aspects of the cultural dimension. The first item "*The speaker limits socialising at work to prescribed break/rest periods*" (adapted from Adams and van Eerde 2010) checks for perceived task- vs humane-orientation, with higher levels of agreement speaking for task-orientation and therefore monochronicity. Following this, the next item, "The speaker seems tolerant of interruptions and distractions at work" (adapted from Adams and van Eerde 2010), checks for the perceived openness for spontaneous requests. Similarly, the third item "*The speaker more or less expects that nothing will go according to schedule*" (adapted from Kaufman-Scarborough and Lindquist 1999) assesses how the speaker is perceived to deal with schedules and therefore if he has a sequenced or simultaneous view of time, with the former speaking for monochronicity and the latter for polychronicity. The question of punctuality was raised by the fourth item, "The speaker thinks it is okay to be 15 or 20 minutes late for a meeting" (adapted from Dolzhikova

et al. 2021), with higher levels of agreement speaking for polychronicity. Multitasking was covered by the fifth item, “*The speaker is comfortable doing several things at the same time*” (adapted from Kaufman-Scarborough and Lindquist 1999), with a preference for multitasking speaking for perceived polychronicity. The final item, “*If I send a follow-up email, the speaker will respond right away or soon after*” (adapted from Holtbrügge et al. 2013), checks for the less commonly discussed aspect of promptness in communication, with higher levels speaking for monochronicity (Holtbrügge et al. 2013). This item was included to assess the expectations generated by the final phrase of the audio vignette, mentioning that the cancellation confirmation will be sent within 48 hours at the latest.

Due to the data-driven expansion of the model encompassing two additional sub-variables of perceived chronemics, this section of the questionnaire also assesses *humane-orientation* and *task-orientation*. As item one directly assessed *task-orientation* and *humane-orientation* as two ends of the same spectrum, which doesn't represent the multi-dimensional approach employed in the extended model, this item is included in neither of the sub-variables.

Humane-orientation

The former is assessed by items two and five. Item two, assessing how the speaker is perceived to deal with interruptions, is linked to *humane-orientation*, as openness to interruptions is grounded in a person's anxiety to find out what people require, despite their arrival at an unscheduled moment or for an informal reason, in addition to a cultural reluctance to schedule people (Adams and van Eerde 2010). The resulting tendency to switch focus between tasks links item five, which assesses a person's openness to multitasking, to the sub-variable of *humane-orientation*.

Task-orientation

As for *task-orientation*, this concept was captured by items three, four and six. Item three, which assesses the perceived discomfort caused by changes in the speaker's schedule, is linked to *task-orientation*, as it presents the opposite of the aforementioned unwillingness to schedule people in *humane-orientation*. Instead, a high affinity for scheduling is linked to a meeting culture with strict agendas, which focus on the job rather than relationship building, ensuring that no time is wasted (Adams and van Eerde 2010). This focus on the efficient usage of time also links item four, which assesses the speaker's perceived insistence on punctuality, with the concept of *task-orientation*. Said connection holds especially true when the insistence on punctuality is prioritised over maintaining smooth personal relations (Adams and

van Eerde 2010). Item six, capturing the speaker's perceived promptness, is also linked to *task-orientation* through its connection to adherence to schedules in communication, even when set in the multitasking-encouraging context of email communication (Holtbrügge et al. 2013).

Section 2: Perceived Professionalism

The second section concerned the main dependent variable of perceived professionalism and consisted of six randomised items that had been adapted from questionnaires designed to assess professionalism in medical education, such as the Professionalism Assessment Tool (PAT) (Noreen et al. 2023) and the questionnaire for measuring professionalism as a multi-dimensional construct, as created by Carter et al. (2015). The questionnaire items were selected from these studies in a way that they assess the various traits as used in the definition of professionalism chosen for this study.

The first item deals with the task-related aspect of competence in relation to time-orientation. By stating “*The speaker demonstrates effective time management /punctuality*” (adapted from Noreen et al. 2023), it respects the monochronic cultural background of the creators of the definition of professionalism, and the cultural context of the DACH region in which the participants reside, as punctuality is given prime value in the efficient ordering of time in these cultures (Macduff 2006). However, even without the monochronic cultural background, punctuality is still seen as preferable by, for example, Latin European managers (Adams and van Eerde 2010). The difference is that in polychronic cultures, punctuality competes with other cultural values (Macduff 2006), and despite being approved in general, it is not insisted upon as is the case in monochronic cultures (Adams and van Eerde 2010). The second item relates to the trait of “respectfulness” by asking the participants if they think that “*The speaker shows respect to peers, clients and others*” (adapted from Noreen et al. 2023). By stating that “*The speaker demonstrates sensitivity and responsiveness to the client's culture, age, gender, and disabilities.*” (adapted from Noreen et al. 2023), the third item checks for the courtesy of the speaker as perceived by the participants. The next item indirectly assesses the perceived trustworthiness by asking if “*The speaker completes tasks in a reliable manner*” (adapted from Noreen et al. 2023). The concepts of trustworthiness and reliability are closely interrelated, as they both lie at the intersection of the dimensions of credibility, trust and quality, while also being part of the intrinsic category of attributes, which means that they are inherent attributes that are not contingent on the use context (Liu et al. 2023). For the fifth item, the participants were asked to assess if “*The speaker works well with others*” (adapted from Carter et al. 2015). By answering this item, the perceived cooperation of the speaker was assessed. Lastly, the reverse-scaled item asking if “*The speaker leaves duties for other people*” (adapted from

Carter et al. 2015) was included to see if the speaker was perceived as supportive in case of disagreement with the statement.

Section 3: Chronemic Self-Assessment

The third section was designed to assess the participant's placement on the spectrum of time-orientation. It thus covers the same aspects of the cultural dimension as covered by the first section. However, the wording was changed to prevent any influence from the previous section. The aspect of task- vs humane-orientation is covered by the first item asking the participant's view on the statement "*I believe that socialising at work is a necessary part of the process*" (Adams and van Eerde 2010). A person's reaction to disturbances or interferences was assessed by the statement, "*I feel that family commitments should not interfere with work whenever possible*" (Adams and van Eerde 2010). For the aspect of scheduling and therefore the sequenced or simultaneous view on time, the third item asks for the participant's thoughts on the statement "*Changes in my schedule upset me*" (Kaufman-Scarborough and Lindquist 1999), with higher levels of agreement indicating a monochronic time perception. Expectations about punctuality and deadlines were checked by including the statement "*I seldom expect people to do things exactly when they say they will*" (Kaufman-Scarborough and Lindquist 1999), with higher levels indicating polychronicity. Lastly, the aspect of multitasking was assessed by the statement "*I do not like to juggle several activities at the same time*" (Kaufman-Scarborough and Lindquist 1999), with agreement indicating a preference against multitasking and therefore a monochronic time-orientation. Items covering promptness were omitted at this stage, as it is not usually included in questionnaires relating to the self-assessment of monochronic vs polychronic time-orientation (Bluedorn and Kaufman-Scarborough 1992; Bluedorn et al. 1999; Kaufman-Scarborough and Lindquist 1999; Adams and van Eerde 2010). Its previous inclusion merely serves as an additional item related to the audio vignette and is not relevant to the self-assessment section.

Section 4 - Demographic Questions

The final section concerning demographic questions consisted of six items, two of which have a control function. These items are those of cultural affiliation and residence. When answering the question about the participant's place of residence, the options were limited via drop-down menu to the countries of the DACH region, namely Austria, Germany and Switzerland. This ensured that the inclusion criterion was met, assuming the questions were answered honestly.

The item of cultural affiliation asked “*Which cultural group do you feel closest to? (Select one primary)*”, and gave the participants the following options to choose from: *African, Anglo/North American (e.g., US, UK, Canadian), Central Asian or Chinese, East Asian (Japan/South Korea/Taiwan), Eastern European/Slavic, Germanic (Austrian/German/Swiss), Latin American, Middle Eastern/Turkish/Arabic, Nordic (e.g., Danish, Swedish, Finnish), South Asian (e.g., Indian, Pakistani), Southern European/Latin (e.g., Italian, Spanish, Greek), Prefer not to say*. Said options were mainly linked to the monochronic or polychronic cultural orientation of a country, which is why, for example, the slightly polychronic China (van Everdingen and Waarts 2003) was linked to Central Asia, rather than East Asia, which in this case is a slightly monochronic cluster (van Everdingen and Waarts 2003). This item was included to ensure that assumptions about participants embedded in a monochronic cultural background could be tested, as the participation restriction of living in the DACH region also makes people socialised in a different culture eligible to participate. This type of restriction was chosen since by asking for cultural affiliation at the end, rather than tying a Germanic cultural background to the inclusion restrictions, participants weren’t primed to cultural differences before even beginning the survey. Additionally, this generated a more diverse data sample with participants embedded in various monochronic and polychronic cultural clusters, while retaining the option to examine participants embedded in a monochronic cultural background more specifically.

To check for biases and whether the perceived chronemics of the speaker matched their perceived origin, participants were asked to answer “*Where do you think the speaker was from? (Country or Cultural Group)*”. This question was open-ended to ensure that participants could answer as specifically and freely as they felt comfortable. Following this item, the other demographic questions covered standard items, such as age group. This question gave participants the option to select either 18-24, 25-34, 35-44, 45-55 or 55+. Additionally, participants were asked to indicate their employment status, given the options *student, part-time, full-time* or *unemployed/retired*. Participants were also asked to “*Please select your highest level of education*”, given the options to choose between *High school or equivalent, Vocational training/apprenticeship, Bachelor’s degree, Master’s degree, PhD, Other* or *Prefer not to say*. Lastly, participants were asked “*Please select which gender you identify as*”, given the options *Female, Male, Non-Binary, Other* or *Prefer not to say*.

Aspect/Trait	Questionnaire Item	Coding
Section 1: Speaker Chronemics		

Task- vs Humane-Orientation	The speaker limits socialising at work to prescribed break/rest periods.	Monochronic, reverse-coded
Interruptions (Humane)	The speaker seems tolerant of interruptions and distractions at work.	Polychronic
Schedules (Task)	The speaker more or less expects that nothing will go according to schedule.	Polychronic
Punctuality (Task)	The speaker thinks it is okay to be 15 or 20 minutes late for a meeting.	Polychronic
Multitasking (Humane)	The speaker is comfortable doing several things at the same time.	Polychronic
Promptness (Task)	If I send a follow-up email, the speaker will respond right away or soon after.	Monochronic, reverse-coded
Section 2: Perceived Professionalism		
Competent	The speaker demonstrates effective time management /punctuality.	
Respectful	The speaker completes tasks in a reliable manner.	
Trustworthy	The speaker shows respect to peers, clients and others.	
Courteous	The speaker demonstrates sensitivity and responsiveness to the client's culture, age, gender, and disabilities.	
Cooperative	The speaker works well with others.	
Supportive	The speaker leaves duties for other people.	Reverse
Section 3: Chronemic Self-Assessment		
Task- vs Humane-Orientation	I believe that socialising at work is a necessary part of the process.	Polychronic

Interruptions	I feel that family commitments should not interfere with work whenever possible.	Monochronic, reverse-coded
Schedules	Changes in my schedule upset me.	Monochronic, reverse-coded
Punctuality	I seldom expect people to do things exactly when they say they will.	Polychronic
Multitasking	I do not like to juggle several activities at the same time. (R)	Monochronic, reverse-coded
Section 4: Demographic/Control Questions		
Culture	Which cultural group do you feel closest to? (Select one primary)	Control Question
Residence	Which country do you currently live in?	Control Question
Assumed Origin	Where do you think the speaker was from? (Country or Cultural Group)	Control Question
Age	Please select your age group.	Demographics
Employment	Please select your employment status.	Demographics
Education	Please select your highest level of education.	Demographics
Gender	Please select which gender you identify as.	Demographics

3.2.3. Measurement tools

The various constructs used in the different sections of the questionnaire mostly achieved acceptable reliability, supporting their usage for further testing. However, due to the low Cronbach's Alpha of the chronemic self-assessment, in both the overall sample and in the sample of participants with a monochronic cultural background, this construct was excluded from further testing. Perceived polychronicity was subject to similar concerns. Despite said reliability issues, the construct was included in further tests, as its alpha passes the lower acceptability threshold for exploratory research of 0.5 (George and Mallery 2003) in the purely monochronic sample, while only barely missing it in the overall sample. Additionally, polychronicity as a theoretical construct has a very strong theoretical relevance

and is well established in intercultural research, strengthening the decision to continue testing despite low internal reliability.

Concept	n <i>(All)</i>	<i>n</i> <i>Mono</i>	Number Items	Mean (SD)	<i>Mean</i> <i>(SD)</i> <i>Mono</i>	Cronbach's Alpha	<i>Cronbach's</i> <i>Alpha</i> <i>Mono</i>
Perceived Polychronicity (<i>SC</i>)	111	96	6	3.8348 (.6932)	3.8281 (.6576)	.4654	.5375
Perceived task-orientation (<i>Task</i>)	111	96	3	3.5856 (1.1531)	3.5625 (1.1651)	.5296	.6006
Perceived humane-orientation (<i>Hum</i>)	111	96	2	4.0270 (1.2095)	4.0365 (1.1338)	.5981	.5236
Perceived Professionalism (<i>PP</i>)	111	96	6	4.4429 (.9229)	4.4740 (.9389)	.7799	.7942
Chronemic Self-Assessment (<i>OC</i>)	111	96	5	4.1387 (.7194)	4.1812 (.7433)	.2639	.3128

Table 1: Scale description (Overall & Monochronic background sample)

Item	Mean	<i>Mean</i> <i>mono</i>	SD	<i>SD</i> <i>mono</i>	r_{it}	r_{it} <i>mono</i>
SC1	4.1982	4.2083	1.2271	1.1869	0.2382	.0879
SC2	3.9730	4.0104	1.4551	1.3803	0.4218	.1724
SC3	3.4595	3.3958	1.5712	1.5320	0.1438	.3035

SC4	3.4775	3.5208	1.4823	1.4289	0.2011	.2736
SC5	4.0864	4.0625	1.4086	1.3751	0.3315	.3744
SC6	3.8198	3.7708	1.7539	1.7136	0.1104	.4804
Task1	3.4595	3.3958	1.5712	1.5320	0.4228	.4760
Task2	3.4775	3.5208	1.4823	1.4289	0.4069	.4332
Task3	3.8198	3.7708	1.7539	1.7136	0.2211	.3332
Hum1	3.9730	4.0104	1.4551	1.3803	0.4268	.3546
Hum2	4.0864	4.0625	1.4086	1.3751	0.4268	.3546
PP1	4.3694	4.3646	1.3680	1.3387	0.5533	.5529
PP2	4.9459	5.0000	1.2851	1.2732	0.5810	.5590
PP3	4.9189	4.9479	1.3426	1.3717	0.6341	.6463
PP4	3.8378	3.8958	1.5288	1.5042	0.5721	.5534
PP5	4.2973	4.3333	1.2975	1.3272	0.6247	.6323
PP6	4.2883	4.3021	1.1785	1.1887	0.2107	.3434
OC1	5.4504	5.5208	1.5652	1.5558	0.0202	.0789
OC2	3.8649	3.9479	1.7135	1.7733	-0.0475	.0019
OC3	3.8018	3.9167	1.5714	1.6004	0.2405	.2330
OC4	3.8739	3.7812	1.7379	1.7180	0.1235	.1109
OC5	3.7027	3.7396	1.6711	1.6749	0.3185	.3634

Table 2: Item description (Overall & Monochronic background sample)

3.3. Sampling

The aforementioned questionnaire was online from the 26th of February 2026 until the 16th of March 2026, resulting in a timeframe of 19 days. During this period, the questionnaire was started a total of

155 times, 111 of which were completed. As the only criterion for inclusion or exclusion was the participants' residence in the DACH region, the selection of which was required to complete the survey, all 111 completed cases could be used for the data analysis. Participant recruitment was executed in two waves. The first wave relied on convenience sampling, using a neutral plea to complete the questionnaire, while informing potential participants about the estimated length of five minutes, the requirement that they live in the DACH region, and the broad topic of first impressions in service encounters. This message was posted in various university groups, such as student groups covering all of Vienna and Austria. Additionally, it was posted on social media and uploaded to SurveyCircle and SurveySwap. As this first wave didn't manage to secure the goal of at least 100 valid observations, a second wave was employed using a more personal approach. The said approach included the direct request to people, many of whom were studying at different universities, to repost and share the survey in their respective student groups and social circles, therefore employing a snowball recruitment strategy.

3.4. Data Analysis

3.4.1. Data preparation

The relevant items were used to create supporting variables necessary to answer the hypothesis. A usable score of perceived polychronicity was created by adding up the individual Likert items and creating an average score. The items were thus summed up and divided by the number of items, six in this case. The same was done for perceived professionalism, which also had six items, for perceived task-orientation, which had three items, and for perceived humane-orientation, which had two items. It is important to note that the items making up perceived task- and humane-orientation are both included in perceived polychronicity. To account for differences in the number of items asked per concept, the analysis began by generating additional variables that capture the weighted average score per concept. As a result, the resulting variables all had the Likert-Scale value range from one to seven.

To create the option to test the purely monochronic sample, the answer to the participant's cultural affiliation was supplemented with the additional variable of belonging to the monochronic or polychronic cultural cluster. In this sample, the only monochronic culture among the participants was *GERMANIC*. Therefore, the polychronic cluster consisted of all cultural affiliations, aside from *GERMANIC* and *PREFER NOT TO SAY*.

As the 16 points of origin assumed by the participants resulted in some groups having very limited observations, the manipulation success was tested using the country clusters based on monochronic or

polychronic time-orientation. Only three could not be clearly determined as monochronic or polychronic. These three groups are *EMPTY*, representing answers that did not contain a location, *EUROPE*, which is too diverse to be described as either monochronic or polychronic, and *SOUTH AFRICA*, which, due to its being split by culture, ethnicity and race (Mashau 2012) cannot be clearly put into either group. These missing values amount to a number of 10, leaving 101 observations that can be clearly placed in one of the two groups. The first group of monochronicity contains all observations regarding *AUSTRALIA*, *GERMANY*, *NORDIC*, *NORTH AMERICA* and *WESTERN EUROPE*. The second group of polychronicity contains all observations regarding *AFRICA*, *ARABIC*, *ASIA*, *EASTERN EUROPE*, *INDIA*, *LATIN AMERICA*, *MEDITERRANEAN*, and *SOUTH ASIA*. Although the groups of *AFRICA* and *ASIA* face the same issue as *EUROPE*, the fact that these continents are almost entirely polychronic, unlike the European continent, which is more diverse in terms of time-orientation (van Everdingen and Waarts 2003), led to the decision to include these observations in the group of polychronic cultures.

3.4.2. Hypothesis testing

Before testing the manipulation success, the null-hypothesis of homogeneity of variances between the accent groups was tested using an ANOVA. This was conducted with all of the relevant metric variables, namely perceived polychronicity, perceived task-orientation, perceived humane-orientation and perceived professionalism.

Following this pretest, the manipulation success was established using the assumed cultural clusters of origin. A Chi-Square test was used to determine how many participants assigned the speaker with an accent to the corresponding cultural cluster. An ANOVA was used to examine which images the accents evoked, in order to determine the perceived polychronicity for each accent group. The effect of the manipulation was further examined by conducting an ANOVA to test whether the assumed cluster of origin affects the perceived time-orientation. Cluster of origin was used rather than country/region of origin, as the observations for some of the points of origin are as low as one observation. Therefore, the clusters, with 30 observations in the case of the monochronic cluster and 71 in the case of the polychronic cluster, offered a basis of analysis that is a lot more stable than the countries/regions themselves.

The main hypothesis analysis started off by testing for any significant bias against the assumed countries of origin of the speaker in terms of perceived professionalism. The null-hypothesis of “no bias” was tested using an ANOVA examining the influence of assumed country of origin on perceived professionalism. For this analysis, data from participants who didn’t indicate a country or region of origin were omitted.

After having examined the impact of the manipulation and the null-hypotheses, the first main hypothesis was tested using a linear regression to inspect the relationship between perceived polychronicity scores and perceived professionalism scores.

The potential effect of gender as a moderating variable in the relationship between perceived polychronicity and perceived professionalism was tested via a moderated multiple regression analysis.

Similar to the first main hypothesis, the relationship between perceived task-orientation and humane-orientation and perceived professionalism was tested using linear regressions for each construct. To evaluate the multi-dimensional approach and assess if these constructs affect perceived professionalism independently from each other, a multiple linear regression was employed.

The final analysis re-examined the second null-hypothesis to assess whether there was residual bias after controlling for the significant constructs. To do so, an ANCOVA was conducted to examine the impact of the assumed point of origin (excluding the *EMPTY* category) on perceived professionalism, with task- and humane-orientation as covariates. Both analyses regarding assumed speaker orientation could not be completed using the non-monochronic sample, as it became too small for testing after excluding the *EMPTY* category.

All data analysis was conducted in Stata Version 18.

4. Results

4.1. Sample description

The data sample of 111 valid observations is almost equally split between the two audio vignettes. 56 of the participants heard the Finnish audio vignette, whereas 55 heard the Spanish audio vignette, resulting in a difference of 0.9%.

Due to the restriction of participants to those living in the DACH region, 76 (68.47%) participants resided in Germany, making them the largest group and 64.29% of the Finnish sample, at 36 observations, and 72.73% of the Spanish sample, at 40 observations. Following this group, people residing in Austria added up to 33 (29.73%) observations, 20 (35.71%) of which heard the Finnish audio, and 13 (23.64%) of which heard the Spanish one. Lastly, only two observations came from people living in Switzerland, making them 1.8% of the overall sample and 3.64% of the Spanish sample.

The grouping condition of cultural background revealed the successful selection of inclusion criteria, as 96 (86.49%) of the participants affiliated themselves with a Germanic cultural background. The selection criteria of living in the DACH region, therefore, created a sample that is mostly embedded in a monochronic culture, without mentioning culture early on, thereby priming the participants towards cultural differences before even starting the survey. Of these Germanic participants, 46 (82.14%) heard the Finnish vignette, and 50 (90.91%) the Spanish one. Two of the participants selected the African cultural background, with them being evenly split between the Finnish accent (1.79%) and the Spanish accent (1.82%). One participant selected the East Asian cultural background, accounting for 0.90% of the overall sample and 1.79% of the Finnish-accented subgroup. The Eastern European/Slavic background was chosen by two participants, accounting for 1.80% of the total sample and 3.57% of the Finnish sample. Similarly, two participants, both of whom had heard the Finnish accent, selected “Prefer not to say”, resulting in 1.80% of missing values for any analysis relating to the observer's cultural background. As was the case for the African background, the Latin American background was selected twice, once for each audio vignette, resulting in 1.80% of the total sample, 1.79% of the Finnish sample and 1.82% of the Spanish sample. Similar to the East Asian sample, only one participant selected the South Asian cultural background, accounting for 0.90% of the overall sample. As this participant had heard the Spanish accent, they accounted for 1.82% of that subgroup. The second-largest group of participants had a Southern/Latin European background. These five observations made up 4.50% of the overall sample, with three (5.36%) having heard the Finnish accent, and two (3.64%) the Spanish accent.

When controlling for gender, the split of the overall sample is almost equal between males and females. 50 (45.05%) of the observations affiliated themselves with the female gender, and 58 (52.25%) with the male gender. Only three (2.7%) participants were non-binary, all of whom heard the Finnish accent, making them 5.36% of that subgroup. As for the male participants, 24 heard the Spanish accent, making them 43.64%, and 34 heard the Finnish accent, making them 60.71% of that subgroup. Therefore, 31 (56.36%) of female participants heard the Spanish accent, and 19 (33.93%) the Finnish one.

For the questionnaire item regarding the perceived speaker origin, the answers to the open question were clustered into groups according to geography and cultural time-orientation. This process resulted in 16 distinct groups. The first group is *AFRICA*, containing one observation in response to the Spanish audio vignette, accounting for 1.82% of responses to that accent. The second group is that of *ARABIC*, totalling four (3.60%) observations, three (5.36%) of which were in response to the Finnish audio, and one (1.82%) in response to the Spanish accent. The third group of *ASIA* also contained four (3.60%) observations, equally split among the vignettes, making them 3.57% of the Finnish and 3.64% of the Spanish subsample. The answer *AUSTRALIA* was given twice, only in response to the Finnish audio

vignette, making it 1.80% of the overall sample and 3.57% of the subsample. *EASTERN EUROPE* accounted for 6.31% of the total sample, with five (8.93%) responses relating to the Finnish accent and two (3.64%) to the Spanish accent. A total of six participants gave answers that couldn't be related to a region, such as "Don't know" or "Non English native". These answers were clustered in the group *EMPTY* and accounted for 10.71% of the Finnish subsample. *EUROPE* was the response in three cases, all pertaining to the Finnish audio, making this group 5.36% of the subsample. Another group related only to the Finnish audio vignette was *GERMANY*, with three observations accounting for 5.36% of the subsample. The largest group was *INDIA* with 30 observations, accounting for 27.03% of the entire sample. 25 of these responses related to the Spanish audio, accounting for 45.45% of this sample, and five related to the Finnish audio, accounting for 8.93% of the latter sample. *LATIN AMERICA* was mentioned once in response to the Spanish audio, making it 1.82% of the subsample. As a close third, the group of *MEDITERRANEAN* totalled 18 (16.22%) observations, with two (3.57%) in response to the Finnish vignette and 16 (29.09%) in response to the Spanish vignette. The *NORDIC* group was slightly larger, with a total of 20 (18.02%) observations, 19 (33.93%) of which were in response to the Finnish accent, and only 1 (1.82%) to the Spanish accent. This response was therefore the most common for the Finnish accent, with a third of participants correctly identifying the speaker. A total of three participants responded with *NORTH AMERICA*, all after hearing the Finnish audio, therefore making this group 5.36% of this subsample. Also, in response to the Finnish audio, one participant answered *SOUTH AFRICA*, accounting for 1.79% of the Finnish subsample. After hearing the Spanish audio, six people responded with *SOUTH ASIA*, which equates to 10.91% of that subsample. Lastly, two participants placed the Finnish speaker in *WESTERN EUROPE*, making this group 3.57% of the subsample.

4.2. Quantitative results

4.2.1. Assumption testing and Manipulation Check

H0a: The variances of the Finnish and Spanish groups are equal for perceived polychronicity, perceived task-orientation, perceived humane-orientation and perceived professionalism.

The results from the variance ratio tests revealed that there was no significant difference in variances between the Finnish and the Spanish accent conditions for perceived polychronicity, perceived task-orientation, perceived humane-orientation and perceived professionalism. As there is no evidence to

reject the null-hypothesis, the use of a standard one-way ANOVA for group comparisons between the accent manipulations is supported by the results.

	f	p
Perceived polychronicity	0.8522	0.5564
<i>Mono</i>	0.7770	0.3938
Perceived task-orientation	0.9041	0.7103
<i>Mono</i>	0.9864	0.9661
Perceived humane-orientation	1.3352	0.2896
<i>Mono</i>	1.1792	0.5714
Perceived professionalism	1.1155	0.6887
<i>Mono</i>	1.1755	0.5787

Table 3: Variance Ratio Test (Overall & Monochronic background sample)

To examine which image was invoked by the manipulation, the interaction between accent type and perceived polychronicity levels was tested, revealing a significant effect ($p=0.0262$, $F=5.08$). This model explained 3.58% of the observed variance. When filtering for participants with a monochronic background, the effect becomes marginally non-significant, with $p=0.0579$ and $F=3.69$. The adjusted R-squared is reduced to 2.75%. This test can therefore not confirm the success of the manipulation with certainty.

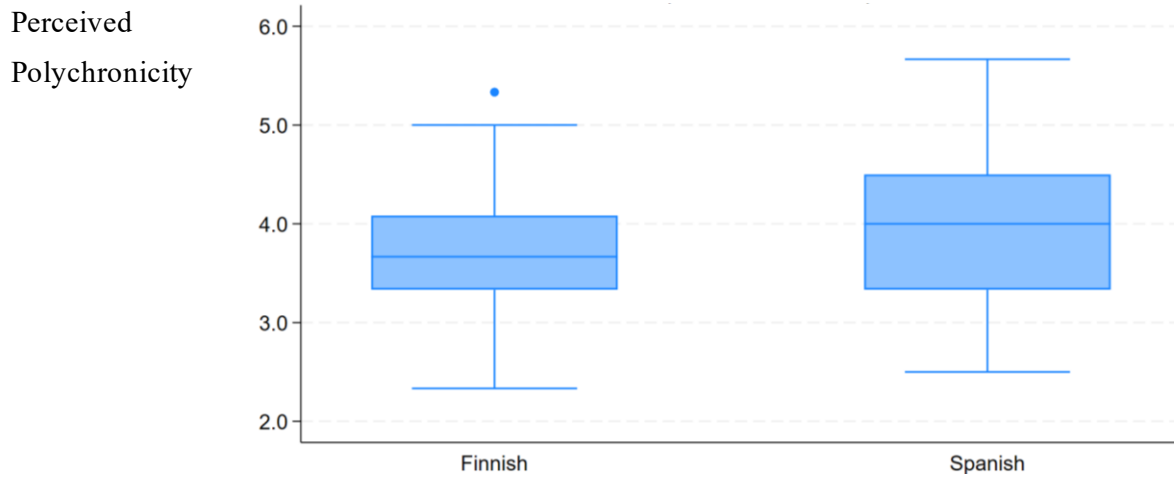


Figure 4: Perceived polychronicity by accent

	Observations	Mean	SD	Min	Max
Finnish	56	3.6905	0.6532	2.3333	5.3333
<i>Mono</i>	46	3.6957	0.6048	2.5	5.3333
Spanish	55	3.9818	0.7076	2.5	5.6667
<i>Mono</i>	50	3.95	0.6862	2.5	5.6667

Table 4: Perceived Polychronicity by accent (Overall & Monochronic background sample)

To further examine the manipulation success, the assumed cluster of origin assigned to the accented speaker by the participants was examined using a Chi-Square test. This test revealed that, for both the overall sample and the monochronic sample, the majority of participants were able to place the speaker in the correct cluster. In the case of the overall sample, 63.04% of participants placed the Finnish speaker in the monochronic cluster, and 98.18% of participants placed the Spanish speaker in the polychronic cluster. The data sample, including only participants from a monochronic cultural background, revealed similar figures, with 61.54% placing the Finnish speaker accurately, and 100% placing the Spanish speaker accurately.

Finnish		Spanish	
Observations	Percent	Observations	Percent

Monochronic	29	63.04%	1	1.82%
<i>Mono</i>	24	61.54%	0	0%
Polychronic	17	36.96%	54	98.18%
<i>Mono</i>	15	38.46%	50	100%

Table 5: Accent x Assumed Chronemic Cluster of Origin (Overall & Monochronic background sample)

Based on these results, the levels of perceived polychronicity associated with the time-orientation clusters were examined using ANOVA. This test revealed statistically non-significant results for both the overall sample and the monochronic participants' samples. The former achieved a p of 0.1720, and the latter p=0.1193. Despite the lack of statistical significance, however, it should be noted that the mean score for perceived polychronicity in the polychronic chronemic cluster was higher than that in the monochronic cluster.

	Observations	Mean	SD	Min	Max
Monochronic	30	3.7167	0.7481	2.5	5.3333
<i>Mono</i>	24	3.6458	0.6973	2.5	5.3333
Polychronic	71	3.9249	0.6719	2.5	5.6667
<i>Mono</i>	65	3.8974	0.6593	2.5	5.6667

Table 6: Perceived Polychronicity by Assumed Chronemic Cluster of Origin (Overall & Monochronic background sample)

Perceived
Polychronicity

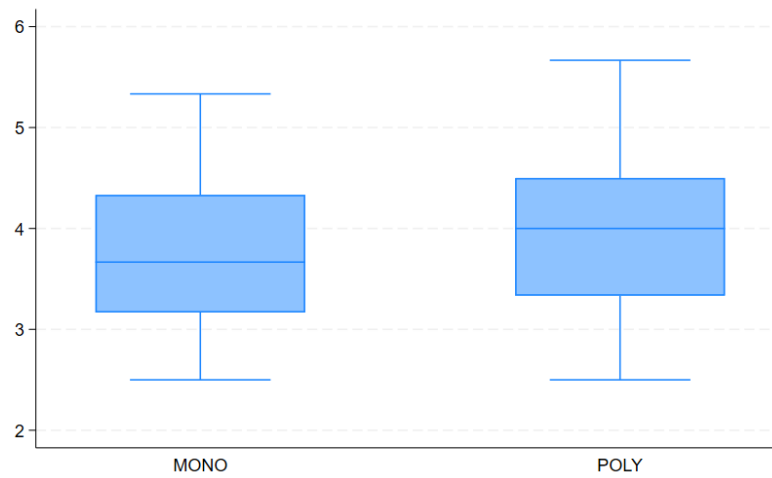


Figure 5: Perceived Polychronicity by Assumed Chronemic Cluster of Origin

Perceived
Polychronicity

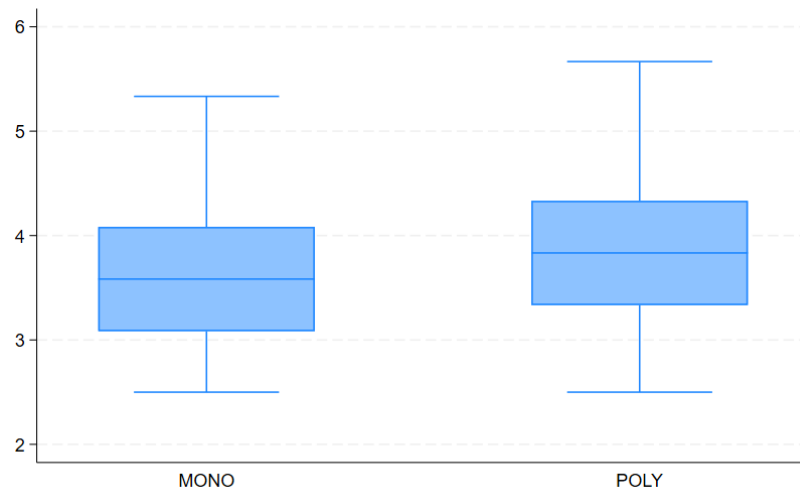


Figure 6: Perceived Polychronicity by Assumed Chronemic Cluster of Origin (Monochronic background sample)

The manipulation checks revealed that although the majority of participants were able to properly place the accent, and although the effect of accent background on perceived professionalism was significant for the entire sample, the insignificant relationship between assumed cultural cluster and perceived professionalism raises doubts about the participants' knowledge of the chronemic background of the speaker based on their accent. However, as none of the main hypotheses focuses on the assumed

chronemic cluster, and the results for the interaction of accent and perceived polychronicity are either statistically significant, or, in the case of the monochronic subsample, marginally significant, the manipulation success will be considered as sufficiently plausible for further testing.

H0b: There is no significant direct influence of the speaker's assumed origin on perceived professionalism in the sample.

The test regarding the second null-hypothesis revealed no significant influence of the assumed origin of the speaker on their levels of perceived professionalism. After dropping the *EMPTY* observations, the test using the overall data set only reached an F of 1.18, and a p of 0.3007, therefore making the influence insignificant. The adjusted R-squared revealed that only 2.43% of variance observations could be explained by this relationship. For the observations made by participants with a monochronic background, the significance of the effect was marginal with a p-value of 0.0652, and an increased F of 1.76. The adjusted R-squared indicated an increase in explanatory power, now accounting for 9.66% of variances. Overall, the results provide no evidence to reject the null-hypothesis that speaker origin does not affect perceived professionalism.

4.2.2. Main Hypothesis

H1: Higher perceived polychronicity in a speaker is associated with lower perceived professionalism among observers with a monochronic background.

The linear regression testing the first main hypothesis revealed a statistically significant, negative correlation between perceived polychronicity and perceived professionalism. For the overall sample, the negative correlation had an r of -0.2181 and p = 0.0214. This correlation was found to account for 3.88% of variances observed. Significance, negative correlation and predictive power increased when filtering for monochronic participants, with r = -0.2867, p = 0.0046 and an adjusted R-squared of 7.25%. These results therefore don't just confirm the hypothesised relationship, but also show the influence of a monochronic socialisation, as the linear regression using the polychronic sample revealed a positive correlation with r = 0.1237. However, this result bears no statistical significance and is based on only 13 observations. Additionally, the construct's relatively low Cronbach's alpha should be taken into account when basing interpretations on these findings.

H1a: Gender has a moderating effect on the relationship between perceived polychronicity and perceived professionalism.

To test the potential moderator gender, a multiple linear regression with interaction term was executed. This test revealed an insignificant effect of gender as a moderator in the overall sample, with $p=0.0740$ and $F=2.38$. This relationship only explained 3.62% of variance in the overall sample. In case of the monochronic subsample, the model gained significance with a p -value of 0.0154, and $F=3.65$, while accounting for an increased percentage of variances, with an adjusted R-squared of 7.73%. The moderating effect of gender on the relationship between perceived polychronicity and perceived professionalism therefore only gained partial support, with significance being limited to a monochronic background of observers.

	F	p	Adj. R-squared
Gender x Polychronicity	2.38	0.0740	0.0362
<i>Mono</i>	3.65	0.0154*	0.0773

Table 7: Moderation test table — Gender x Perceived Polychronicity on Perceived Professionalism (Overall & Monochronic background sample)

H2: Higher perceived task-orientation in a speaker is associated with higher perceived professionalism among observers with a monochronic background.

The second main hypothesis, concerning itself with perceived task-orientation, was tested using a linear regression. The test revealed strong, statistically significant results with $p<0.0001$ and $F=34.15$ for the overall sample. The adjusted R-squared showed that this relationship accounted for 23.16% of the variance in observations. This number increased to 26.66% when filtering for participants with a monochronic background. Similarly, the F-value increased to 35.53, while retaining statistical significance at a p -value smaller than 0.0001. The correlation was found to be negative in both samples. For the overall sample, the r -value was -0.4884. For the monochronic sample, this value increased to -0.5237. As task-orientation was scored for monochronicity, and therefore reverse-scored in the construct of perceived polychronicity, these results confirm the hypothesised relationship of perceived task-orientation and perceived professionalism.

H3: Higher perceived humane-orientation in a speaker is associated with lower perceived professionalism among observers with a monochronic background.

As was the case for the previous hypothesis, the relationship between perceived humane-orientation and perceived professionalism was examined using a linear regression. With an F-value of 19.03 and a highly significant p-value smaller than 0.0001, the overall sample revealed that this model accounted for 14.08% of variances, as seen in the adjusted R-square. These values decreased when applying the purely monochronic sample, with an F of 16.27 and an adjusted R-squared accounting for 13.85% of variances. However, the results remained highly significant, at $p=0.0001$. As for the correlation, the overall sample achieved an r of 0.3855, whereas the monochronic sample revealed a slightly decreased r of 0.3841. Since humane-orientation is scored towards polychronicity, it is not reverse-scored. The results therefore indicate a positive correlation between the variables.

	Perceived Professionalism	Perceived task-orientation	Perceived humane-orientation
Perceived Professionalism	1.000		
<i>Mono</i>	1.000		
<i>Non-Mono</i>			
Perceived task-orientation	-0.4884* 0.0000	1.000	
<i>Mono</i>	-0.5237* 0.0000	1.000	
<i>Non-Mono</i>	-0.1791 0.5229		
Perceived humane-orientation	0.3855* 0.0000	-0.0821 0.3919	1.000
<i>Mono</i>	0.3841*	-0.1883	1.000

	0.0001	0.0661	
<i>Non-Mono</i>	0.4374	0.4373	
	0.1030	0.1031	

Table 8: Perceived task-orientation x perceived humane-orientation x perceived professionalism (Overall, Monochronic & Non-monochronic background sample)

H4: Perceived task-orientation and perceived humane-orientation function independently in predicting perceived professionalism.

The multiple linear regression testing the last main hypothesis revealed the model's high predictive power, with an adjusted R-squared of 34.68%. Additionally, the model as well as the variables in the model gained high statistical significance, with $p < 0.001$ and $F = 30.21$. These values are highly similar but marginally decreased when filtering for monochronic participants. F is reduced to 26.02, and the adjusted R-squared for this subsample indicates that 34.50% of variances can be explained by the model. As for the significance of the individual variables, only that of humane-orientation slightly shifted when filtering for monochronic participants, going from $p < 0.001$ to $p = 0.001$. However, as both variables retained their high significance despite the inclusion of the other in both samples, the independence of the function of these variables, and therefore Hypothesis 4, are confirmed for the monochronic and the overall data set. When testing with the small polychronic data set, the p -values of the model ($p = 0.053$) and of the variable task-orientation ($p = 0.052$) barely missed the threshold for statistical significance. Nonetheless, the variable humane-orientation remained significant, with $p = 0.025$. Therefore, the model is only marginally significant in the small polychronic sample.

H0c: The influence of speaker origin on perceived professionalism remains insignificant after controlling for task- and humane-orientation.

To reexamine the null-hypothesis of no bias against assumed points of origin, the final test involved an ANCOVA to analyse the influence of assumed origin on perceived professionalism after correcting for perceived task- and humane-orientation. This model achieved a high level of statistical significance, with a p -value smaller than 0.0001 and an F -value of 5.77. The high adjusted R-squared indicated the large predictive power, accounting for 42.34%. The p -value for the assumed origin itself also achieved significance, with $p = 0.0486$. However, this significance was mainly driven by the highly significant

results for the assumed speaker origin *WESTERN EUROPE*. The low p-value of 0.018 for this group is based on only two observations, putting any conclusions based on this significance at risk of overinterpreting an unstable estimate. As for the monochronic subsample, the significance increased to $p=0.0170$ for the variable assumed origin, whereas the model achieved the same high significance of $p<0.0001$. The adjusted R-squared slightly increased, accounting for 44.41% of variances, as did the F-value, reaching $F=5.90$ for the subsample. The significance of the variable concerning assumed origin was once again driven by the high significance of the small group *WESTERN EUROPE*, with a p-value of 0.002. Therefore, these findings should be treated with caution.

	F	p	Adj. R-squared
Model	5.77	<0.0001	0.4234
<i>Mono</i>	5.90	<0.0001	0.4441
Assumed Origin	1.81	0.0486	
<i>Mono</i>	2.20	0.0170	
Task-o.	34.21	<0.0001	
<i>Mono</i>	29.26	<0.0001	
Humane-o.	25.13	<0.0001	
<i>Mono</i>	16.42	0.0001	

Table 9: Assumed Origin bias controlled for task- and humane-orientation (Overall & Monochronic Background Sample)

5. Discussion and limitations

5.1. Summary

This thesis set out to examine how perceived polychronicity impacts the levels of employee professionalism in intercultural service encounters as perceived by participants with a monochronic background.

Before testing the main hypotheses, the manipulation success was established by testing perceived polychronicity by accent, assumed chronemic cluster of origin by accent, and the levels of perceived

polychronicity by assumed chronemic cluster of origin. The mixed results showed the moderate success of the manipulation. The increased levels of polychronicity of the Spanish accent compared to the Finnish accent were statistically significant for the overall sample but were only marginally significant with a p-value of 0.0579 in the monochronic sample. As for the ability to place the accent into either the monochronic or the polychronic cluster of countries, the test revealed a success rate of slightly above 60% for the Finnish accents in both sample groups, and a 100% success rate for the monochronic subsample placing the Spanish accent, and a 98.18% success rate in the overall sample's placement of the Spanish accent. The final manipulation test examined the levels of perceived polychronicity by chronemic cluster, which revealed a statistically insignificant relationship, despite the mean value of the Spanish accent being higher in both sample groups.

As the participants' abilities to place the accent correctly are connected to practical implications in a business context, and do not impact the main hypothesis directly, the moderate manipulation success didn't affect the further testing of the main hypotheses. These examined the possibility of a "polychronicity penalty" in perceived professionalism within the confirmed assumptions, that there was no significant direct bias of assumed country of origin on perceived professionalism, and that there was a homogeneity of variances across the accent groups for all the relevant metric variables.

The relationship in question was examined from two perspectives. The first represented the classic unidimensional model, which views task-orientation and humane-orientation as connected to the respective ends of the time-orientation spectrum, with task-orientation being typical of monochronicity and humane-orientation being typical of polychronicity. Therefore, a trade-off relation between these orientations was assumed in the unidimensional approach. Gender was assumed to be a significant moderator in this relationship due to the theoretical link between attributes associated with female gender stereotypes and the communal emphasis in polychronic cultures. Additionally, the findings of Eagly et al. (2020), connecting women with occupations characterised by flexibility and social contributions, and the findings of Szameitat and Hayati (2019), showing significantly increased scores of polychronicity in women, supported the assumption of gender being a significant moderator. While the general negative relationship between perceived polychronicity and perceived professionalism gained statistically significant support, the same cannot be said for the assumption of gender as a moderator in the relationship between these variables. Although gender was found to significantly moderate this relationship in the monochronic subsample, the effect was only marginally significant in the overall sample.

The second approach employed was a multidimensional one, treating task- and humane-orientation as independent predictors of perceived professionalism, rather than putting them in a trade-off relationship

which diminished internal reliability and predictive power. These two concepts were tested individually and as a combined model. The tests revealed the significant positive influence of either orientation on perceived professionalism and their increased predictive power when using both in one model. This combined approach was also used to reexamine whether there was a bias against the speaker's assumed point of origin after controlling for the influence of the orientations. The final re-examination revealed a significant bias based on assumed origin and, by acknowledging said bias, gained explanatory power, therefore achieving the highest R-squared of the tested models.

5.2. Discussion of results

Hypothesis 0a, which assumed homogeneity of variances across the accent groups regarding the relevant metric variables, did not find any support for rejection. Therefore, the option of using ANOVA in further testing with the data sample could be confirmed.

The results of the manipulation checks revealed that although the participants had a certain sense about the chronemic placement of the speaker, the predictive power of this relationship is low and its statistical significance is not stable, as seen in the marginal significance in the purely monochronic sample. Interestingly, although the placement of the speaker in the monochronic or polychronic cluster of countries was largely successful, the perceived polychronicity of these clusters was not significantly linked to the chronemic groups. As a result, the signalling of chronemic background via the accent cannot be clearly confirmed or rejected.

The monochronic embeddedness was originally intended to be assessed using two mechanisms. The first being the current one, by focusing on cultural background as assessed by the demographic question: *"Which cultural group do you feel closest to?"*. The second mechanism was intended to be based on the chronemic self-assessment. However, this mechanism was abandoned due to the low levels of Cronbach's alpha for this construct.

As the second null-hypothesis, covering the possibility of differences in perceived professionalism being driven by biases against individual countries or regions of origin, also did not gain any significant support, the conditions assumed for testing the main hypothesis were found to be confirmed.

While testing the first main hypothesis, the existence of a "polychronicity penalty" in perceived professionalism as judged by those with a monochronic background gained highly significant support. In addition, those participants who didn't have a monochronic background were found to rate perceived polychronicity as positively impacting perceived professionalism. Due to the selection criteria limiting

participation to those living in the DACH region, the sample of participants without a monochronic background only included 13 observations, impeding the latter finding's statistical significance. This finding is additionally impeded by the fact that the value of Cronbach's Alpha for the overall sample was under 0,5 which by some is considered to be the threshold of unacceptably (George and Mallery 2003). Although this value was surpassed in the purely monochronic sample, it is still in the area of low internal reliability. The relationship detailed in Hypothesis One should therefore be treated with caution, despite its statistically significant support.

The possibility of gender having a moderating effect on the previously examined relationship gained partially significant support. Although the influence was found to significantly impact the correlation in the monochronic sample, the same is not true for the overall sample. The results in the monochronic subsample fall in line with previous research, which has found women to be predominant in positions that can be theoretically linked to the attributes of humane-orientation and flexibility, as emphasised by polychronicity, and with empirical research which has found that women have higher scores of polychronicity. The fact that the female gender stereotype, which is often internalised, mainly revolves around communal values, which again link it to humane-orientation as valued by polychronicity, also speaks for the theoretical footing of gender in a moderating role. However, despite both theoretical link and empirical findings, judgements regarding perceived professionalism as inferred from perceived polychronicity are not found to be significantly impacted by the gender of the person making them, independent from their cultural background.

Following concerns of internal reliability while using the single-dimensional approach to polychronicity, the multidimensional approach employed in hypotheses two to four yielded larger predictive power for perceived professionalism. The largest F-value for a single-construct model was achieved by the predictor task-orientation, confirming its strong connection to monochronic professionalism. This is especially apparent when comparing the overall sample to the monochronic sample. When filtering out the non-monochronic participants, the regression coefficient increases by about 0,035, going up to $r = 0.5237$. The regression coefficient of the non-monochronic group may not be significant due to the small sample size, but the fact that its level of $r = 0.1791$ is not even half as large as the level achieved by the monochronic sample indicates what a difference a monochronic socialisation can make in the assessment of accented employees.

As for humane-orientation, tested as an independent construct rather than just being the opposite of task-orientation, the results indicated the reversed influence of a monochronic socialisation, although the differences were not as large as in the previous analysis. The correlation coefficient only decreased by 0.0014 when filtering for monochronic participants, and the regression coefficient of the purely

polychronic sample was only about 0.05 higher than that of the monochronic sample. As the non-monochronic group only included 15 observations, statistical significance was not achieved in the subsample. However, despite this small number of observations, the p-value of 0.1030 shows promise that a larger sample could replicate similar results. This positive correlation comes as a surprise, since the cognitive flexibility measured by these items should imply reduced adherence to schedules and delays in time management, which would run counter to the values of monochronic professionalism. However, these results seem to indicate that the positive influence of humane-orientation on perceived professionalism is a lot more stable than that of task-orientation across cultural boundaries.

As humane-orientation is positively correlated to perceived professionalism, and task-orientation, as a reverse-scored construct, is also positively correlated towards perceived professionalism, participants do not seem to view task- and humane-orientation as being in a trade-off relation. This can also be seen in the non-significant relationship of the two concepts in the correlation table. Interestingly, the correlation indicated by the non-significant relationship is positive due to the reverse-scoring of task-orientation. Additionally, this relationship gains strength and becomes marginally significant when filtering for participants with a monochronic background. For the non-monochronic sample, however, the regression coefficient is positive at $r = 0.4374$, which indicates a negative correlation due to the reverse-scoring of task-orientation. So, it appears that monochronic participants do not see the necessity for trading off task-orientation for humane-orientation, or vice versa. On the contrary, there is a high potential that a larger sample would reveal a significant positive correlation between the two. Non-monochronic participants, however, do appear to have a sense of these concepts being in contrast to each other, at least to a certain degree.

An insignificant, or potentially even positive correlation between the concepts once again speaks against the necessity for trading off one for the other, supporting the decision to employ a multi-dimensional approach by treating the concepts separately. The potential necessity for a trade-off, as seen in the non-monochronic sample, could be explained by previous findings stating that task-oriented fixation on aspects like punctuality or scheduling, as it is common in monochronic cultures, can be viewed as unpleasant and intrusive from outside the monochronic socialisation, especially when prioritised over smooth personal relations. As punctuality takes prime value in the task-focus common in monochronic cultures, prioritising such task-related aspects is not viewed with the same negative impact on personal relationships as is the case for the non-monochronic sample. This aspect of varying prioritisation of task- and humane-orientation can be seen in the regression coefficients of the groups. The strongest single predictor for perceived professionalism in the monochronic sample is perceived task-orientation, while the strongest predictor in the non-monochronic sample is humane-orientation. Despite the latter's

statistical insignificance due to the small sample size, the large difference of about -0,35 in the regression coefficients connecting perceived professionalism and task-orientation between the two chronemics groups is worth noting.

Testing of the final main hypothesis confirmed the independent function of the variables task- and humane-orientation. This supports the decision to shift from a single-dimensional approach to a multi-dimensional one, as most observers don't view them as being in a trade-off relation. These findings fall in line with the previous results, indicating that there is no significant correlation between the two concepts. Within the changes in significance levels of the variables, the different cultural prioritisation of task- and humane-orientation becomes apparent once more when. When going from the overall sample to the monochronic sample, the significance of humane-orientation as a predictor for perceived professionalism is very slightly reduced, whereas task-orientation retains $p=0.000$. The opposite is the case for humane-orientation when filtering for polychronic observers. Here, humane-orientation remained significant, despite the slight increase of p , whereas task-orientation lost its statistical significance. This result should, however, be treated with extreme caution, as the group of polychronic observers only consisted of twelve people.

The final re-examination of the null-hypothesis, assuming no bias against a specific point of origin, after controlling for perceived task- and humane-orientation, led to the model with the largest adjusted R-square, making it the model with the highest explanatory power. The highly significant model explains 44.41% of the variance in the monochronic sample and 42.34% in the overall sample. Each variable is seen to be statistically significant in both samples, meaning that the assumption of no bias is contradicted. However, the significance of the influence of the assumed point of origin on perceived professionalism is almost entirely driven by the statistical significance of *WESTERNEUROPE*, which only includes two observations. Therefore, claims that assumed origin significantly affects perceived professionalism should be made with extreme caution, so as not to overinterpret the effect of this small group.

5.3. Limitations

Sampling

The study relies mostly on convenience sampling of students and people with higher educational degrees, resulting in a relatively homogeneous and not very diverse sample in terms of age, education, and socio-economic background. The non-monochronic group is very small and emerged only as a by-product of the non-priming inclusion criterion, namely residence in the DACH region controlled by

the free choice of cultural affiliation, which makes all conclusions regarding polychronic or non-monochronic observers particularly tentative and limits the transferability of the findings to broader, more heterogeneous customer populations.

Stimulus

The audio stimuli were generated using AI text-to-speech voices, so it remains unclear whether participants perceive and process these synthetic accents in the same way as natural, human-produced accents in real interactions. Also, the manipulation is only partly successful. While the Spanish accent is generally rated as more polychronic in the main sample, perceived polychronicity is not significantly related to the chronemic clusters of assumed origin, raising questions about how cleanly the intended chronemic signal was transmitted. In addition, the scenario itself is highly controlled and artificial, consisting of a scripted monologue rather than an interactive call provided in an online format without controlled external conditions, which increases internal control but reduces ecological validity as listening conditions, such as the device and background noises, could not be controlled, creating the possibility that the stimulus was heard under suboptimal conditions.

Measurement of time-orientation constructs

There are reliability issues for the chronemic self-assessment scale, which showed very low internal consistency and therefore had to be dropped from further analyses, limiting the ability to link observer time orientation to their evaluations. The study is conducted predominantly with participants embedded in monochronic cultures, which is consistent with the research question but restricts insight into how polychronic observers might perceive the same stimuli. Additionally, it is worth noting that the study was designed and interpreted from a monochronic perspective.

Task- and humane-orientation scales

Task- and humane-orientation are derived post hoc from a small set of items that were originally designed to capture perceived polychronicity as a unidimensional construct. As a result, each subscale is based on only a few items, and the measurement of these dimensions is necessarily limited in its breadth, which may underestimate their complexity and reduce the stability of regression estimates involving these constructs, so the multidimensional model should be regarded as exploratory.

Assumed origin bias testing

Hypotheses 0b and 0c tested the possibility of a bias against points of origin affecting perceived professionalism directly, rather than via the perception of time-, task- or humane-orientation. To do so, the open-ended origin attributions had to be grouped into broader regional and national categories to obtain sufficient sample sizes for analysis, which may gloss over important nuances at the regional or country level. Additionally, as some groups remained very small even at the largest level of grouping, any results derived from tests involving assumed origin have to be treated with caution so as not to overinterpret the results from the small group sizes. This limitation is especially relevant due to the group of *WESTERN EUROPE* driving the significance of assumed origin, despite it only consisting of two observations. Taken together, these limitations mean that the tests of H0b and H0c can indicate potential patterns but do not allow strong conclusions about systematic origin-based bias.

5.4. Conclusion

Although the results do generally indicate the presence of a “polychronicity penalty” in the assessment of perceived professionalism from a monochronic perspective, reliability concerns and increased predictive power speak for the multi-dimensional approach combining task- and humane-orientation, instead of using the trade-off relationship embedded in assumptions about monochronicity and polychronicity. By abandoning the unidimensional approach, the tests revealed a far more complex role of task- and humane orientation in professionalism assessment. Surprisingly, humane-orientation proved itself to be a rather stable positive predictor, independent of cultural background, whereas task-orientation varied strongly between the monochronic and non-monochronic samples. The resulting prioritisation of task- over humane-orientation in the monochronic, and humane- over task-orientation in the non-monochronic sample supports the results of previous studies. However, the differences in this prioritisation when it comes to assessing professionalism are almost entirely caused by the differing evaluation of task-orientation, while humane-orientation remains stable, which is a promising finding that warrants further exploration.

Especially, the nature of the relationship these concepts share should be examined with a larger, more diverse data set. The fact that task- and humane-orientation have a positive correlation with marginal significance in the monochronic sample, while sharing a negative correlation in the polychronic sample, shows that depending on the cultural background, there might be a perceived trade-off between the

concepts, or they might be seen as enforcing each other. This stark contrast can be explained using the findings of previous research, which suggests that insistence upon such task-related traits like punctuality and keeping deadlines can be viewed as unpleasant from a polychronic view if prioritised over smooth relations. Therefore, a trade-off between task- and humane-orientation from the polychronic perspective seems logical, as one is seen as impeding the other. From a monochronic perspective, however, enforcing deadlines or prioritising work over family and friends is usually met with understanding, and therefore not necessarily seen as negative to someone's humane-orientation.

As this high prioritisation of punctuality and effective time-management is central to monochronic professionalism, these results can also be seen as confirming the study's core premise of there being a "polychronicity penalty" due to the mismatch between the values of polychronicity and those of monochronic professionalism. However, this explanation only touches upon the surface, as the tests revealed the simple presence or absence of perceived task-orientation as the driving factor behind this penalty, rather than any inferences made from perceived humane-orientation.

Managerial implications

As the manipulation checks revealed that people are only able to make judgements about someone's time-orientation to a very limited degree based on accent, international service providers should be able to overpower these judgements by signalling their prioritisation of task- or humane-orientation. When servicing a monochronic market, service employees should therefore ensure a very clear task focus, for example, by providing a clear schedule of what to expect when, or by emphasising promptness. Adherence to such schedules should then be included in quality standards monitoring to prevent frustration for the monochronic individual when deadlines are not met. Factors like response times, on-time callbacks, and completion of promised actions should therefore be central in the KPIs when operating in a monochronic market.

Due to the small samples size, any interpretation made about people embedded in a polychronic background should be viewed with extreme caution to avoid overinterpretation. Should further research using a larger polychronic sample confirm the findings of this research, service providers would not have to worry about signalling task-focus in polychronic markets or might even want to avoid it entirely. The latter would become relevant if the negative correlation between humane-orientation, as the stronger predictor of perceived professionalism in the polychronic sample, and task-orientation is found to be statistically significant with a larger polychronic sample. The limited perceived professionalism gained from signalling of task-orientation would then most likely not be worth the losses in perceived

professionalism suffered from the negative correlation of task- and humane-orientation. Managers operating in a polychronic market should therefore not focus on such time pressures in their KPIs but allow for their employees to take the necessary time to build a relationship with the customer.

So, while the existence of a “polychronicity penalty” can only be confirmed to a certain degree, this study clearly reveals the pivotal role of task-orientation in the assessment of professionalism from a monochronic perspective. In addition, the fact that humane-orientation appears to have a similar relationship to professionalism regardless of one’s chronemic background opens up the potential for a global baseline transmitting humane-orientation. This value could be incorporated into call centre scripts and the corporate identity as a whole, promoted by training materials and corporate culture. The signalling of task-orientation, however, should be used with caution, as its effect in non-monochronic markets cannot be predicted with statistical significance based on this sample. What is clear is that when operating in a monochronic market, there should be a strong emphasis on task-orientation.

Building on the broader societal context of rising populism and anti-immigration sentiments, which may bias customers against foreign accents in service encounters, the findings of this study also have implications for communication strategies in politically sensitive environments. Rather than responding to such pressures by relocating service work back onshore or by favouring specific accents in recruitment, international service providers can actively communicate the professionalism standards they apply to all employees, regardless of origin. Internally, the results support the argument that investing in chronemic awareness and professionalism training for foreign-accented employees is likely to be a more sustainable and equitable strategy than a structural retreat from offshoring. Such investments address the underlying expectations about time use and professional conduct that shape customer evaluations and therefore offer a more targeted response to the potential “polychronicity penalty” than strategies that simply attempt to minimise the presence of foreign accents in customer-facing roles.

6. Appendix

AI discourse

The AI tools ElevenLabs, Perplexity, and Elicit were used in the creation of this thesis. ElevenLabs empowered the creation of the accents, as detailed in the thesis. Elicit was used to support the search for relevant papers, as was Perplexity. Perplexity was also employed to support grammar and literary fluency and acted in a supporting role when writing the STATA code and dealing with errors in the code.

All AI outputs were reviewed, edited, and validated by the author, who retains full responsibility for the content, analysis, and interpretations.

Item- Code	Original	Adapted	Source
SC	Speaker Chronemics		
SC1	Socialising at work should be limited to prescribed break/rest periods, in my opinion.	The speaker limits socialising at work to prescribed break/rest periods. (R)	Adams and van Eerde (2010)
SC2	I think that interruptions and distractions at work should be kept to a minimum.	The speaker seems tolerant of interruptions and distractions at work.	Adams and van Eerde (2010)
SC3	I more or less expect that nothing will go according to schedule.	The speaker more or less expects that nothing will go according to schedule.	Kaufman-Scarborough and Lindquist (1999)
SC4	Do you think it is OK to be 15 or 20 minutes late for class?	The speaker thinks it is okay to be 15 or 20 minutes late for a meeting.	Dolzhikova et al. (2021)
SC5	I am comfortable doing several things at the same time.	The speaker is comfortable doing several things at the same time.	Kaufman-Scarborough and Lindquist (1999)
SC6	When I receive an email, I respond right away or soon thereafter.	If I send a follow-up email, the speaker will respond right away or soon after. (R)	Holtbrügge et al. (2013)
PP	Perceived Professionalism		
PP1	Demonstrate effective time management /punctuality	The speaker demonstrates effective time management /punctuality.	Noreen et al. (2023)
PP2	Completes tasks in a reliable manner	The speaker completes tasks in a reliable manner.	Noreen et al. (2023)

PP3	Show respect to peers, physicians and other health professionals	The speaker shows respect to peers, clients and others.	Noreen et al. (2023)
PP4	Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.	The speaker demonstrates sensitivity and responsiveness to the client's culture, age, gender, and disabilities.	Noreen et al. (2023)
PP5	Work well with other healthcare professions, in general	The speaker works well with others.	Carter et al. (2015)
PP6	Leave station duties for other people	The speaker leaves duties for other people. (R)	Carter et al. (2015)
OC	Participant Chronemics		
OC1	I believe that socialising at work is a necessary part of the process.		Adams and van Eerde (2010)
OC2	I feel that family commitments should not interfere with work whenever possible. (R)		Adams and van Eerde (2010)
OC3	Changes in my schedule upset me. (R)		Kaufman-Scarborough and Lindquist (1999)
OC4	I seldom expect people to do things exactly when they say they will.		Kaufman-Scarborough and Lindquist (1999)
OC5	I do not like to juggle several activities at the same time. (R)		Kaufman-Scarborough and Lindquist (1999)
DD	Demographic/Control Questions		
Culture	Which cultural group do you feel closest to? (Select one primary)		
Residence	Which country do you currently live in?		
SO	Where do you think the speaker was from? (Country or Cultural Group)		
Age	Please select your age group.		

Employment	Please select your employment status.
Education	Please select your highest level of education.
Gender	Please select which gender you identify as.

Demographic Data	Accent	Item	Observations	Percentage
Age	All	18-24	9	8.11%
		25-34	78	70.27%
		35-44	10	9.01%
		45-54	5	4.50%
		55+	9	8.11%
	Finnish	18-24	3	5.36%
		25-34	44	78.57%
		35-44	3	5.36%
		45-54	2	3.57%
		55+	4	7.14%
	Spanish	18-24	6	10.91%
		25-34	34	61.82%
		35-44	7	12.73%
		45-54	3	5.45%
		55+	5	9.09%
Cultural Background	All	African	2	1.80%
		East Asian	1	0.90%
		Eastern European/Slavic	2	1.80%

		Germanic	96	86.49%
		Latin American	2	1.80%
		Prefer not to say	2	1.80%
		South Asian	1	0.90%
		Southern/Latin European	5	4.50%
	Finnish	African	1	1.79%
		East Asian	1	1.79%
		Eastern European/Slavic	2	3.57%
		Germanic	46	82.14%
		Latin American	1	1.79%
		Prefer not to say	2	3.57%
		Southern/Latin European	3	5.36%
	Spanish	African	1	1.82%
		Germanic	50	90.91%
		Latin American	1	1.82%
		South Asian	1	1.82%
		Southern/Latin European	2	3.64%
Gender	All	Female	50	45.05%
		Male	58	52.25%
		Non-Binary	3	2.70%

	Finnish	Female	19	33.93%
		Male	34	60.71%
		Non-Binary	3	5.36%
	Spanish	Female	31	56.36%
		Male	24	43.64%
Employment	All	Full-time	52	46.85%
		Part-time	18	16.22%
		Student	37	33.33%
		Unemployed/Retired	4	3.60%
	Finnish	Full-time	26	46.43%
		Part-time	9	16.07%
		Student	19	33.93%
		Unemployed/Retired	2	3.57%
	Spanish	Full-time	26	47.27%
		Part-time	9	16.36%
		Student	18	32.73%
		Unemployed/Retired	2	3.64%
Residence	All	Austria	33	29.73%
		Germany	76	68.47%
		Switzerland	2	1.80%
	Finnish	Austria	20	35.71%
		Germany	36	64.29%
	Spanish	Austria	13	23.64%

Education		Germany	40	72.73%
		Switzerland	2	3.64%
	All	Bachelor's	40	36.04%
		High school/Equivalent	13	11.71%
		Master's	51	45.95%
		Other	1	0.90%
		PhD	1	0.90%
		Vocational training/ Apprenticeship	5	4.50%
	Finnish	Bachelor's	20	35.71%
		High school/Equivalent	7	12.50%
		Master's	25	44.64%
		Other	1	1.79%
		PhD	1	1.79%
		Vocational training/ Apprenticeship	2	3.57%
	Spanish	Bachelor's	20	36.36%
		High school/Equivalent	6	10.91%
		Master's	26	47.27%
		Vocational training/ Apprenticeship	3	5.45%

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