



ISTANBUL MEDENİYET UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF FOREIGN LANGUAGES EDUCATION

**Variation of Metaphor Interpretation and Aptness of
Speakers of English with Different Cultural Backgrounds**

Master's Thesis

Ebru Şen

June, 2024



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Supervisor

Dr. Derya Oruç

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THESIS JURY APPROVAL

This MA thesis titled “Variations of Metaphor Interpretation and Aptness of Speakers of English with Different Cultural Backgrounds” written by Ebru Şen at the Department of Foreign Language Education was accepted by our jury.

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STATEMENTS

Style and Reference Manual Statement

Having reviewed this thesis written under my supervision, I confirm that it has been written in accordance with APA Manual of Style and used its [7th Edition] reference format consistently throughout the entire text.

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Declaration of Originality

I hereby declare that all information in this dissertation has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conducts, I have fully cited and referenced all material and results that are not original to this work.

Ebru Şen

GENİŞ ÖZET

(Farklı Kültürel Geçmişten Gelen İngilizce Konuşanların Metaforu Anlama Yatkınlığındaki ve Yorumlamasındaki Çeşitlilik)

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Geleneksel olarak teoriler metaforu dilde bir aykırılık¹ olarak görür ya da tamamen dilsel bir durum olarak vazgeçilebilir olarak tanımlar (Fan, 2018). Bilişsel dilbilimsel görüş ise metaforların dilsel yapılardan daha fazlası olduğu, düşünceyi etkileyen deneyim ve motivasyona dayandığı fikrini destekler (Lakoff ve Turner, 1989). Bununla birlikte, metaforlar insanların dünya anlayışlarını yansıttığı ve şekillendirdiği için kültürlerimizin şekillendirildiği sosyal bağlamlarda önemlidir (Su, 2002). İnsanların kültürel inanç ve normlara sahip olması belirli bir gruba ait olma duygusu kazanmalarını sağlayabilirler. Modern metafor görüşünün ortaya çıkmasından sonra metaforların nasıl anlaşıldığı konusu üzerinde durulmaya başlanmıştır. Metaforun anlaşılmasıyla ilgili bir kavram olan metafor yatkınlığı, kültürel değer ve düşüncelerden etkilenebilmektedir. Örneğin doğaya ilişkin metaforlar, doğaya saygı duyulan ve kutsal sayılan kültürlerdeki insanlar tarafından anlamlı fikirlerin ifade edilmesinde bu metaforlara daha yatkın olabilir ve bunları daha çok tercih edebilir (Kövecses, 2005). Öte yandan, teknoloji ve gelişmeye ilişkin metaforlara, teknolojik başarıya yüksek değer veren toplumlardaki bireyler daha yatkın olabilir. Örneğin, Eskandari ve Khoshsima (2021), sadece İngilizce konuşanların bazı metaforları anlamaya daha yatkın olduğunu, Farsça ve İngilizce konuşanların ise anlamaya daha az yatkın olduğunu bulmuş ve bunun katılımcıların ülkelerinin dünya anlayışlarını etkileyen coğrafi özelliklerinden kaynaklanabileceği sonucuna varmıştır. Kültürlerarası iletişim, metafor kullanımı ve algısındaki kültürel farklılıklardan önemli ölçüde etkilenir. Yanlış

¹ Aksi bildirilmedikçe terimlerin çevirisi yazarın kendisine aittir.

iletiřim, metaforların farklı kültürel kökenden gelen insanlar tarafından yanlış yorumlanmasından kaynaklanabilir. Metaforlar dilde, düşünce ve söylemde çok yaygın olduđu için, genel olarak iletiřim gibi kültürlerarası iletiřimin de metaforlar tarafından hem desteklenmesi hem de engellenmesi muhtemeldir. Musolff (2014) farklı kültürlerden katılımcıların tamamının daha önce ele alınan temaya ilişkin açıklamalarında "devlet bir insan vücududur" metaforuna yer verdiklerini ancak metafora bakış açılarının Batı ve Doğu kültürü arasında farklılık gösterdiğini tespit etmiştir ve metafor anlayışının kültürlerarası iletiřimde yanlış anlaşılma nedenlerinden biri olabileceđi sonucuna varmıştır. Metaforlar, dil öğrenenlerin dil öğrenirken karmaşık fikirleri anlamalarına yardımcı olsa da, bazı bağlamları anlamayı zorlaştırdığı için dil öğrenenler için de kafa karışıklığı kaynağıdır. Littlemore ve Low'e göre (2006) ikinci dil öğrenenler hedef dildeki yeterliliklerine rağmen, tipik olarak mecazi dili anlamakta zorlanırlar çünkü bu durum normları, kültürel çıkarımları ve mecaz dil bilgisini içeren "ana dil yeterliliđi" yetersizliğinden kaynaklanır.

İngilizce doğru kullanıldığında çeşitli gruplar arasında iletiřimi ve anlayışı teşvik eder. Bir araç olarak metafor, mesajların ilgili durumlarda iletilmesini sağlayarak iletiřimi daha da geliştirir. Konuşmacıların zor kavramları veya duyguları açık ve öz bir şekilde aktarmalarına olanak tanıırken iletiřimin etkisini arttırdığı için etkili İngilizce kullanımını kolaylaştırır (Lakoff ve Johnson, 1980). Bununla birlikte, dilsel ve kültürel farklılıklar anlayışı ve yatkınlığı büyük ölçüde etkileyebileceğinden, kültürlerarası iletiřimde metaforların yorumlanması daha karmaşık hale gelir (Charteris-Black, 2004). Yapılan birçok araştırma, bazı metaforların farklı kültürlerden insanlar tarafından aynı anlamda anlaşıldığını, bazı metaforların ise bazı gruplar tarafından farklı şekilde anlaşıldığını ortaya koydu (Alqarni, 2022; Quy, 2016). Bu nedenle metaforların tam olarak anlaşılabilmesi iletiřim bozukluđuna neden olabilir. Ayrıca dil yeterliliđi, bilişsel stiller ve sosyokültürel arka plan gibi çok çeşitli bireysel ve bağlamsal değişkenler, insanların metaforları ne kadar anladıklarını etkiler (Sharifian, 2017). Bu sebeple, çok kültürlü ve çok dilli ortamlarda, kültürlerarası iletiřim becerilerini geliştirmek ve kültürel farkındalığı teşvik etmek için bu öğelerin metafor anlayışıyla nasıl etkileşime girdiğini anlamak çok önemlidir (Lakoff ve Johnson, 1989).

Bu çalışma, metafor yatkınlık analizi yoluyla metaforun anlaşılmasına ilişkin bazı detayları yakalamayı amaçlamaktadır. Araştırmanın bu analizi, metaforların anlaşılmasında önemli bir faktör olarak metafor yatkınlığında kültürlerarası çeşitliliđi incelemeyi amaçlamaktadır. Katılımcıların yatkınlıkları

arasında olası farklılıklara ulaşılması hedeflenmektedir. Ayrıca bu çalışmayla dil öğretimine yönelik faydalı çıkarımlar elde edilmesi amaçlanmaktadır. Bu araştırma, bu değişkenlerin metafor kavrayışını nasıl etkilediğine ışık tutarak dilbilim ve bilişsel bilim anlayışımızı ilerleteceği öngörülmektedir (Chiu vd., 2011; Kövecses ve Szabco, 1996). Bu incelemenin sonuçlarının uluslararası iş görüşmeleri, kültürlerarası iletişim ve dil eğitimi alanlarında uygulamaları olabilir. Çalışma, farklı kültürel kökenden gelen üniversite öğrencilerinin metafor kabul edebilirliğini, yorumlamasını ve üretimini karşılaştırmayı amaçlamaktadır. Metaforun kabul edilebilirliğinin karşılaştırılması iki ölçek aracılığıyla, metafor üretimi ise yarı yapılandırılmış görüşmede anket yoluyla ölçülmüştür. Görüşme, araştırmacının planlanandan daha fazla soru sormak yerine yalnızca katılımcıların anlamakta zorlandığı kelimeleri açıkladığı veya anlaşılmadığında ne demek istediklerini açıklamalarını istediği için yarı yapılandırılmış bir görüşmedir (Dursun, 2023; Patten ve Newhart, 2018).

Bu çalışma tanımlayıcı ve ilişkisel bir tasarıma sahiptir. Ayrıca katılımcıların metafor kabul edilebilirlik dereceleri ile paralel ilişkileri kabul edilebilirlik dereceleri arasındaki ilişkiyi incelediği için ilişkisel araştırmanın özelliklerini gösterir. Karma bir metodoloji kullanılan bu çalışmada, hem nicel (kapalı uçlu) hem de nitel (açık uçlu) kaynaklardan veri toplandı ve incelendi (Creswell, 2015). Katılımcılar Ankara'da özel bir üniversitede bölümlerini İngilizce okuyan 40 lisans öğrencisidir. Katılımcıların, bölüm eğitimine başlamadan önce kendi okullarındaki hazırlık eğitimini orta veya orta üstü yeterlilik düzeyinde tamamlamış olmaları veya TOEFL gibi uluslararası bir dil sınavından orta-üstü puan almaları nedeniyle İngilizce yeterliliklerinin orta veya orta-üstü olduğu varsayılmaktadır. Seçilen okulda sayılarının fazla olması nedeniyle İran, Nijerya, Suriye ve Türkiye ülkelerinden birinde büyüyen öğrenciler çalışmaya davet edilmiştir. Çalışmaya uyrukları dikkate alınarak davet edilmişlerdir. Çalışmaya her uyruktan 10 öğrenci katılmıştır. Araştırmada demografik ve eğitim bilgileri, paralel ilişki üretimi testi (PİÜT), metaforun kabul edilebilirliği ölçeği (MKÖ) ve paralel ilişkilerin kabul edilebilirliği ölçeği (PİKÖ) ile ilgili verileri elde etmek için dört araç kullanılmıştır. Metafor üretimi aracındaki her bir madde, katılımcılardan verilenle aynı hissi veren veya aynı anlama gelen başka bir ilişki bulmalarını ister. Örneğin, "Rüşvet ile toplum arasındaki ilişki _____ ile _____ arasındaki ilişkiye benzer". Yarı yapılandırılmış görüşmede bu araç kullanılmıştır. Katılımcıların ürettikleri ilişkileri testteki ilişkilerle neden ve nasıl karşılaştırdıkları net olmadığında araştırmacı, "Neden böyle düşünüyorsunuz?" ve "Hangi alan hangisine benziyor?" sorularıyla bunu açıklamalarını istemiştir. Sorular, katılımcıların alanlarla ilgili özellik tercihlerine ilişkin daha fazla fikir

edinmek amacıyla sorulmuştur. Metafor kabul edilebilirliği ölçeğinde, ilişkiler bağlamsal cümlelerle verilmiş ve metafordaki iki alanın karşılaştırılması doğrudan parantez içinde verilmiştir. Örneğin, ölçeğin bir maddesi "Rüşvet hastalığı bu ülkede o kadar yaygın ki ondan kurtulmak çok zor (rüşvet bir hastalıktır)" şeklindedir. Bu ölçekteki maddelerdeki aynı ilişkiler, katılımcıların metafor kabul edilebilirliği ve paralel ilişkileri kabul edilebilirliği arasında bir ilişki olup olmadığını ölçmek için katılımcıların bu iki ölçeklerdeki maddeleri puanlamaları arasında anlamlı bir ilişki olup olmadığını göstermek için kullanılmıştır. Paralel ilişkilerin benzerliğini ölçmek için kullanılan ölçek, katılımcıların iki farklı ilişkiyi karşılaştırarak benzerliklerini ölçmelerini gerektiren maddelerden oluşur. Örneğin, ölçeğin bir maddesi "Rüşvet ile toplum arasındaki ilişki, hastalık ile insan arasındaki ilişkiye benzer" dir. Katılımcılardan PİÜT'teki ilişkilerle eşleşen ilişkileri ürettikten sonra MKÖ'deki ve PİKÖ'deki maddelerin kabul edilebilirliğini derecelendirmeleri istenmiştir.

Nicel verilerin hem güvenirlik ve geçerlilik kontrolü hem de analizi için Sosyal Bilimler İstatistik Paketi (IBM SPSS İstatistik 23.0 yazılımı) kullanılmıştır. Milliyet ve ana dil faktörlerine göre MKÖ puanlamalarında anlamlı farklılık olup olmadığını belirlemek için Kruskal Wallis H uygulanmıştır. Yaş, cinsiyet, İngilizce eğitim ve konuşma yılı ve günlük İngilizceye maruz kalma düzeyi değişkenlerinin etkisine ilişkin olarak çoklu regresyon analizi yapılmıştır. Son niceliksel analiz, MKÖ ve PİKÖ maddeleri arasında anlamlı bir korelasyon olup olmadığını kontrol etmek için Spearman Korelasyon Analizi kullanılmıştır. Nitel veri analizini gerçekleştirirken araştırmacı analiz aracı rolünü üstlenerek temalara karar vermiştir (Starks ve Trinidad, 2007). Araştırmacının analizinin güvenilirliğini arttırmak için, Lincoln ve Guba'nın (1989) çalışmasında önerildiği gibi bir akran araştırmacının bilgilendirmesi sağlanmıştır.

MKÖ'nün istatistiksel analizi, farklı kültürel kökenden gelen katılımcıların bir madde hariç tüm metaforlara metafor uygunlukları arasında istatistiksel bir anlamlılık ortaya koymamıştır. Türk ve Nijeryalı katılımcıların derecelendirmeleri arasında bir maddede istatistiksel olarak önemli bir fark olduğu ortaya çıkmıştır. Ayrıca bu araştırmanın kaynağı olan Eskandari ve Khoshsima'nın çalışmasında (2021) derecelendirme ortalamaları karşılaştırılmıştır. Bu çalışmada derecelendirme farklılıkları istatistiksel olarak farklılık göstermese de, her grubun derecelendirmelerin ortalamaları Eskandari ve Khoshsima'nın çalışmasında olduğu gibi farklılık göstermiştir. Bu farklılıklar metafor yatkınlığında kültürel altyapıya bağlı olarak farklılıklar görüldüğü desteklemektedir. Değişkenlerin metaforun kabul edilebilirliği üzerindeki etkisi

incelendiğinde, günlük maruziyetin birinci, ikinci, beşinci ve yedinci metaforların kabul edilebilirlik derecesi üzerinde etkili olduğu bulunmuştur. Ayrıca dördüncü maddenin kabul edilebilirlik puanında İngilizce konuşma süresinin önemli bir değişken olduğu bulunmuştur. Katılımcıların yaşı ve daha önce yurtdışında yaşama deneyimleri, sırasıyla üçüncü ve dördüncü maddelerin yatkınlığında etkili bulunmuştur. Dolayısıyla kelimeleri veya metaforları duyma sıklığının metafor yatkınlığını etkiliyor olabileceği düşünülmüştür. Metafor kabul edilebilirliği ile paralel ilişkiler kabul edilebilirliği derecelendirmeleri arasında altıncı maddeler hariç tüm maddelerde pozitif yönde bir ilişki bulunmuştur. (MKÖ 6= öfke bir patlamadır, PİKÖ 6= Öfke ile insan arasındaki ilişki bir patlama ile bir yanardağ arasındaki ilişkiye benzer). Bunun nedeni, herkes tarafından çok dikkat çeken ve bilinen bir kavram olan "öfke" kavramının bireysel deneyim farklılıklarından kaynaklanıyor olabileceğidir. Araştırmanın sonuçları, kolayca etkinleştirilebilen ilişkiler bir metaforun temeli olduğunda, metaforun yüksek derecede kabul edilebilirliğe (6. hariç) ve dolayısıyla daha yüksek bir yatkınlığa sahip olduğunu göstermiştir, ki bu da Eskandari ve Khoshsima'nın (2021) bulgularıyla tutarlıdır. Bu nedenle, metaforun kabul edilebilirliği dışında bu ölçekler arasındaki korelasyon da metaforların yatkınlığını kanıtlamaktadır, ancak kültürel geçmişlerinin bu yatkınlıkta istatistiksel bir fark oluşturmadığı bulunmuştur. Katılımcıların (PİÜT'te) paralel ilişkiler kurmak için ürettikleri ilişkilerin temaları kültürel geçmişlerine göre farklılık göstermemiştir. Verilen ilişkilere uygun olarak üretilen ilişkilerin bazı ortak özelliklerinin olup olmadığını görmek için temaların anlam odağının kontrol edilmesi faydalı olabileceği için ilişkiler arasındaki temel çıkarımlar kontrol edilmiştir. Bunu yaparken kelimelerin özellikleri ve imaları dikkate alınmıştır. Özelliklerin sınırlı gruplara ayrılabilmesi bulunmuştur. Metafor aracı ve konusundaki bazı özelliklerin öne çıktığı ve metaforu daha uygun hale getirdiği kanıtlanabilmektedir. Bu özellikler temalarına ve odak noktalarına göre sınıflandırılabilir de katılımcıların kültürel geçmişine göre sınıflandırılamamıştır.

Dil öğrenenlerin metafor yatkınlığını geliştirmek için, öğrencilerin kendi metaforlarını bulmalarını gerektiren rol yapma etkinlikleri, onları kültürel açıdan daha bilinçli hale getirebilir ve eşleştirmeler hakkında düşünmek üzere eğitilecekleri için metafor yatkınlığını geliştirebilmektedir. Dil öğretmenleri, öğrencilerin metaforların temel özellikleri hakkında daha bilinçli olmalarını sağlamak ve öğrencileri dilin kültürüne daha aşina olmalarını sağlamak için öğrencilerin yanlış metafor kullanımına ilişkin açık geri bildirim verebilir. Kültürel farklılıklara ilişkin gelecekteki metafor yatkınlığı çalışmaları, bu

perspektifler (dil ve kltr) arasındaki etkileşimi daha iyi anlamak için hem sosyoloji hem de dilbilim araştırmacıları tarafından analiz edilebilir; çünkü dil, kltrn şekillenmesinin bir nedeni olabileceğinden, yalnızca dil kltr işaret etmek için yeterli olmayabilir. Sonuçların daha iyi analiz edilebilmesi için katılımcı sayısı artırılabilir ve kltrel çeşitliliğın daha iyi anlaşılması için daha az çok-kltrl lkelerden katılımcı dahil edilebilir.

Anahtar Kelimeler: Metafor anlama, metaphor kavrama, metaphor yatkınlığı, metaphor retme, kavramsal metafor

ABSTRACT

Variations of Metaphor Interpretation and Aptness of Speakers of English with Different Cultural Backgrounds

Şen, Ebru

Master's Thesis, Department of Foreign Language Education, English Language Education

Supervisor: Dr. Derya Oruç

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The role of metaphor in language and communication has long sparked researchers' interest particularly concerning its cross-cultural and linguistic dynamics. Metaphors serve as powerful tools in conveying complex ideas, yet their aptness and acceptability may vary depending on cultural and linguistic factors. This research studies the intricate relationship between cultural and linguistic factors and metaphor aptness through the participants' metaphor acceptability. Additionally, it aims to reveal any differences related to metaphor aptness regarding demographic and linguistic variables. Moreover, it is aimed to analyze whether and to what extent there is a correlation between the acceptability of metaphor acceptability and parallel relationship acceptability. The last purpose is to analyze any differences related to metaphor production regarding cultural background of the participants, offering insights into how metaphors reflect cultural conceptualizations. In the study, data were collected from 40 university students who studied in Turkey at the data collection time. Participants were divided into four groups according to their nationalities (Iranian, Nigerian, Syrian, Turkish). Each group included 10 participants. Data were collected through three tools. First, the participants produced relationships similar to the relationships given in the test. Later, they were asked to rate the acceptability of the metaphors on a scale. These judgements were analyzed as their aptness of the metaphors in the scale. Lastly, they rated the similarity of two different relationships. The analyses of the quantitative data were done through Statistical Package of Social Sciences (SPSS 23.0). It was found that there was no statistically important difference in metaphor acceptability of participants except in one of the items which was rated significantly differently by the Nigerian and Turkish participants. However, there were differences between the mean scores of each group, and this might signal a difference in the acceptability and

indirectly an aptness difference in levels. Daily exposure to English, years of speaking English, living abroad before and age were found to be statistically significant predictors of some of the judgements of participants on metaphor acceptability. Except for one item, a positive correlation was found between the acceptability of metaphors and acceptability of parallel relationships. The analysis of the qualitative data revealed some meaning differences in the production of the relations, however, it was not possible to categorize them depending on the participants' cultural backgrounds.

Keywords: Metaphor understanding, metaphor comprehension, metaphor aptness, metaphor production, conceptual metaphor.

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LIST OF ABBREVIATIONS

L2: Second Language

CMT: Conceptual Metaphor Theory

TPRP: Test of Parallel Relationships Production

ATPRS: Acceptability of Two Parallel Relationships Scale

MSS: Metaphoric Statement Scale

I: Item

X: Target domain

Y: Source domain

SPSS: Statistical Package for the Social Sciences

1. INTRODUCTION

It is aimed to present the rationale of the current study in this section. The section includes the following subsections: background of the study underlying the importance of conceptual metaphor understanding and cross-cultural communication, statement of the problems in relation to metaphor understanding and cross-cultural communication, purpose of the research, research questions, along with the significance of the research and the limitations of the study.

1.1. Background of the Study

Metaphors are essential in forming our perceptions and understanding of the world around us. They are more than just language illusions as they are effective instruments that shape our attitudes, behaviours and relationships. Metaphors are commonly available in human language and mind, appearing in everything from informal conversations to scientific theories, and they aid in our understanding of complicated subjects by referencing well-known experiences and ideas (Gibbs & Matlock, 2008). Thus, metaphors assist people in many aspects of life to ease understanding of complex ideas (Lakoff & Johnson, 1980; Mouraz et al., 2013; Norscini & Daniela, 2024; Thibodeau et al., 2019). However, metaphors might cause misunderstanding sometimes as the application and understanding of metaphors vary greatly throughout cultures since cultural elements such as experiences, values, and beliefs all have a significant impact (Kövecses, 2005).

Cultural schemas are one of the main ways that culture effects how metaphors are used. According to Kövecses (2005), schemas are cognitive structures that help to organize knowledge and direct perception and interpretation. Different cultural

experiences can greatly influence them, resulting in diverse interpretations of the same metaphor. For instance, societies that emphasize production and efficiency, like Western cultures, the metaphor "time is money" may be easily comprehended and accepted. Therefore, while some people from a culture are apt to one metaphor, others from a different culture may not be (Unschuld, 1998). These metaphors have extra significance and resonance within that culture because they are based on experiences, customs, and beliefs that are unique to that environment and culture (Csikszentmihalyi, 1993; Yu, 2002). For instance, the idea of "face" is a cultural metaphor that represents one's dignity, reputation, and social position in East Asian cultures (Kövecses, 2005). This metaphor permeates East Asian societies and has a profound effect on interpersonal interactions and communication.

Moreover, the metaphor aptness, which is a concept related to metaphor comprehension, can be influenced by cultural values and ideas. For example, metaphors relating to nature may be more apt for expressing significant ideas in cultures where nature is respected and considered sacred (Kövecses, 2005). On the other hand, metaphors regarding technology and progress might be more apt in societies that place a high value on technological achievement. For instance, Eskandari and Khoshshima (2021) found that some concepts were more apt for English speakers while it was the contrary for Persian English speakers and she concluded that this might be because of the geographical features of the participants' country which affected their understanding of the world.

Intercultural communication is significantly impacted by cultural variations in metaphor usage and perception. Miscommunication can result from misinterpretations of metaphors by people from different cultural backgrounds. Since metaphors are very common in language, thought, and discourse along with intercultural communication,

communication in general is likely to be both aided and hindered by them. Musolff (2014) found that all of the participants from different cultures included the metaphor "state is a human body" in their explanation of the theme introduced earlier, however, their perspectives on the metaphor varied between the Western and Eastern culture. He concluded that metaphor might be one of the causes of misunderstanding in intercultural communication. As a result, it's critical for people to understand how metaphors are used differently across cultures and to be mindful of how others from diverse backgrounds might understand them.

Even though metaphors help language learners understand complex ideas while learning a language, it is also a source of confusion for the language learners as it complicates understanding some contexts (Littlemore et al., 2011). It was proposed that despite their proficiency in the target language, L2 learners typically struggle with understanding figurative language because they lack "native speaker competence" (Littlemore and Low, 2006), which is the understanding of cultural norms, cultural implications, and the repertoire of figurative language. Littlemore states (2001) that this difficulty in metaphor comprehension can be due to two problems which are misunderstanding or simply not understanding the metaphor.

In brief, metaphors are effective tools that influence our understanding and perception of the outside world. Culture has a profound effect on them, encompassing experiences, attitudes, and beliefs (Su, 2000). Effective intercultural communication requires a knowledge of cultural differences in metaphor comprehension and interpretation since it can help avoid misunderstandings and foster mutual respect and understanding across cultural boundaries (Mykalchuk et al., 2021). Therefore, metaphor aptness which focuses

on the details of the metaphor understanding is a point to be addressed as it may foster intercultural communication.

1.2. Statement of the Problem

The dynamics of communication have changed dramatically in this era due to globalization. Owing to technology, people and organizations may now interact instantaneously over great distances such as the internet and social media (Castells, 2010). As a result, countries now benefit from a more international culture where ideas and information are freely exchanged (Appadurai, 1990). Thus, in today's globalized world, efficient communication has become even more important. One of the main ways to promote intercultural interaction is through good use of English, which is accepted as the universal language. When English is used correctly, it promotes communication and understanding amongst various groups. As a tool, metaphor improves communication even more by enabling the delivery of messages in relevant situations. It facilitates effective English usage because they allow speakers to convey difficult concepts or feelings in a clear and concise manner, improving the impact and engagement of communication (Lakoff & Johnson, 1980). However, the interpretation of metaphors becomes more complex when crossing cultural divisions as linguistic and cultural differences can greatly impact understanding and aptness (Charteris-Black, 2004; Mykalchuk et al., 2021). Since metaphors are able to capture subtle cultural aspects, abstract thinking, and socio-cultural knowledge, their interpretation in many instances may appear to be complicated (Gibbs, 1994). Thus, people with diverse cultural backgrounds may interpret metaphors differently and perceive the metaphors of other languages and cultures differently. This could result in misunderstandings. In the modern interdisciplinary multilingual situation, professional communication can also be

significantly hindered if participants lack the necessary level of metaphorical competence which enables them to understand, employ, and generate metaphors. Ilinska et al. (2016) stated that metaphorical competence is formed naturally in the mother tongue within a certain social, cultural, and linguistic context, but in a foreign language, it is always the result of deliberate and focused effort. Azuma (2009) also stated that mother tongue is the most frequently used strategy when L2 learners process metaphors. Johnson (1989) and Littlemore (2010) stated that the ability of understanding and the production of metaphors in the first and second languages are related. However, even though there are numerous studies on metaphor interpretation and production, there is very little research on how much second language learners transfer their metaphorical skills to the L2 metaphor production and interpretation. Therefore, in order to have an appropriate learning and the metaphors to be comprehended as meant and for metaphors to deliver properly what they mean, more studies on comprehension of participants from different linguistic and cultural backgrounds are needed to make a needs analysis in this aspect.

There are several obstacles to overcome when comprehending and translating metaphors, from preserving propriety to accurately communicating intended meanings across linguistic and cultural frameworks (Kövecses, 2005; Littlemore, 2011; Su, 2002). These difficulties become worse by the metaphors' intrinsic cultural specificity, which results in their varied associations and interpretations depending on the cultural context (Gibbs, 1994). Snell-Hornby (1990) states that translation of metaphors requires a consideration of cultural and linguistic conditions and in order to have a proper cross-cultural transfer, the formal features of the metaphor must be kept. In addition, Ilinska et al. (2015) states that understanding the relationship between sense and reference in the source language is the first step in the translation process. A literal translation of a

metaphor or an interlingual transfer can be achieved if the resources offered by the target language can be employed in such a way that the literal meaning is consistent with the context of use. However, a literal translation of the metaphor will not convey meaning if the interlingual transfer is nonsensical in the target language's semiotic system. Therefore, further research on cultural and linguistic differences on metaphor aptness might underline how important it is to develop a semiotic and cultural sense of metaphor that might bring more implications to a variety of fields.

While certain metaphors might be universally applicable, others might be misunderstood or misinterpreted in cross-cultural communication because they have been securely planted in particular cultural norms, values, and worldviews (Su, 2002; Yu, 1998). A lot of studies have proved that while some metaphors are understood in the same sense by people from different cultures, other metaphors are comprehended differently by some groups (Alqarni, 2022; Quy, 2016). Therefore, weak understanding of metaphors might cause more miscommunication.

Furthermore, a wide range of individual and contextual variables such as language proficiency, cognitive styles, and sociocultural background, effect how well people understand metaphors (Sharifian, 2017). These factors dynamically interact to shape people's understanding and interpretations of metaphors in various cultural contexts. Contextual elements such as how well-known the metaphorical expression is or how clear the surrounding language is may also affect comprehension (Gibbs & Colston, 2012). For instance, metaphors that correspond with the participants' past knowledge or experiences are likely to be more easily comprehended and considered apt. Past knowledge is a significant part of culture that makes a metaphor conventional. Thus, the more a person knows about a metaphor the better a person understands the elements of the metaphor.

Findings of many researchers such as Jones and Estes (2005) and Thibodeau and Durgin (2011) support the idea that conventionality positively correlates with aptness. Furthermore, comprehension is impacted by linguistic factors including the syntactic complexity and semantic transparency of metaphors (Azuma, 2009; Cacciari & Glucksberg, 1994). Metaphors are often seen as more apt and understandable when they preserve a distinct and cohesive relationship between their literal and figurative meanings. This might be due to its relevance to semantics which was stated in the research before. However, the number of studies which examines the relationship between metaphor comprehension and variables such as language competency (including semantic competency, overall language proficiency etc.) that affect metaphor comprehension and aptness is limited. Additionally, individual variables influence disparities in metaphor comprehension such as linguistic ability and cultural backgrounds as metaphor understanding is related to one's past knowledge (Kovecses, 2010; Lakoff & Johnson, 1989) Furthermore, the understanding might vary according to the abstractness of the concepts. Barsalou (1987) points out that abstract concepts are more shaped and are more dependent on past experiences, situations, and cultures compared to concrete concepts. Thus, in multicultural and multilingual settings, it is crucial to comprehend how these elements interact with metaphor understanding in order to improve cross-cultural communication skills and promote cultural awareness (Lakoff & Johnson, 1989). Insights into the cognitive, environmental, and linguistic mechanisms are needed in order to advance our knowledge of how metaphors influence cognition and communication. The language teaching process is also made more difficult by the differences in each learner's cognitive abilities and language backgrounds (Littlemore & Low, 2006; Littlemore et al., 2011). Due to variations in cognitive processes, language proficiency levels, and previous

exposure to metaphorical language, learners may find it difficult to identify and understand or produce metaphors as stated by many studies before. For instance, Fattahi and Nushi (2021) found a positive correlation between the students' proficiency level and metaphor production while Eriksson (2013) found a positive correlation between proficiency level and metaphor processing.

Overall, the absence of research or knowledge on the cultural variations in metaphor aptness presents a major obstacle to cross-cultural communication. In the absence of thorough investigation into the application and interpretation of metaphors in diverse cultural contexts, misinterpretations, misunderstandings, and even offenses may occur.

1.3. Purpose of the Study

This study aims to capture some details on metaphor comprehension through metaphor aptness analysis. This analysis of the study aims to examine cross-cultural variation in metaphor aptness as a significant factor for understanding metaphors. Also, through its qualitative analysis, it is aimed to reveal whether similar themes are thought by people from different cultures or not when seen as a theme of a relationship. It is aimed to find any possible differences among participants' comprehension and cognitive match of two different themes.

Moreover, both vehicle and topic matter in metaphor aptness studies. The present study aims to reveal metaphor aptness of English speakers from different backgrounds through their metaphor acceptability. In addition, it is aimed to reveal whether there is a correlation between the metaphor acceptability of domains and the acceptability of parallel relationships matched regarding the topic (target) and vehicles (source). Furthermore, it is aimed to reveal whether linguistic variables or demographic variables

effect people's metaphor aptness. Additionally, useful implications for language instruction are aimed to be gained through this study. The results can be used by educators to create more culturally aware language teaching resources and methods which will improve the educational experience for students with different cultural backgrounds (Skrefsrud, 2020). In general, the purpose of this study is to further our knowledge of how linguistic and demographic characteristics influence metaphor aptness and how this knowledge can be applied to improve cross-cultural communication.

1.4. Research Questions

With the study's objective in mind, the present study is seeking answers to the following questions:

1. Does metaphor aptness vary regarding cultural and linguistic background?
2. Is English speakers' metaphor acceptability predicted by their linguistic and demographic backgrounds? (*nationality, age, gender, first language, status of living abroad, years of studying and speaking English, and daily exposure to English*)?
3. Is there a relationship between the degree of metaphor acceptability and the degree of acceptability of parallel relations?
4. Can metaphorical relations produced by people from different cultural backgrounds be thematically categorised?

1.5. Significance of the Study

The study's importance stems from its examination of cultural variations on metaphor aptness and its consequences for effective intercultural communication, including language acquisition. This research can contribute to our understanding of how cultural

settings influence language and cognition by examining the cognitive mechanisms that underlie metaphorical thinking across cultural boundaries. In multicultural settings, having a better understanding of how various cultures view and interpret metaphors can help improve methods of communication. By shedding light on how cultural variables affect metaphor comprehension, this research aims to further our understanding of linguistics and cognitive science (Chiu et al., 2011; Kövecses & Szabco, 1996).

The results of this study may have applications in the fields of international business negotiations, cross-cultural communication, and language education. With the use of knowledge provided through the present study, educators can create more culturally aware language teaching resources and methods, improving the educational experience for learners from a variety of cultural backgrounds (Skrefsrud, 2020). These results can also be used by cross-cultural communication trainers to create training curricula that support people in communicating successfully across cultural divides (Chiu et al., 2011). Moreover, the fundamental processes of human cognition, including perception, language processing, and reasoning, can be better understood by examining how metaphors are conceptualized and applied in various cultural contexts. Thus, understanding the cultural differences in metaphor aptness offers important insights on the flexibility and universality of cognitive processes which may contribute to the field of cognition research as it is a cognitive tool (Gibbs, 1994; Lakoff & Johnson, 1989).

Overall, differences between the metaphorical concepts in different languages and cultures have been studied to understand metaphor comprehension (Aksan Y. & Kantar D., 2008; Alqarni, 2022; Ansah, 2010; Gathigia et al., 2018; Huynh & Quy, 2016; Machakanja, 2006; Wang & Lu, 2013). There are limited studies on cultural differences in metaphor aptness despite the fact that cultural differences in metaphor understanding

have been examined in the field of cognition and language by referring to perception or just comprehension. Therefore, concentrating on cross-cultural variation on metaphor aptness, this study addresses a gap in the literature. Also, the thematic analysis of the metaphorical relationships produced are the first in the literature. This analysis was preferred because this might reveal a difference between the groups of participants. According to Boers (2000), as it offers a structure for lexical arrangement, a specific metaphorical conceptual basis or theme may be a signal understanding of concepts. All things considered, present study can advance our knowledge of cultural effects on language and cognition by highlighting the perception and interpretation of metaphors across cultural boundaries (Gannon & Pillai, 2015; Kövecses, 2005).

1.6. Limitations of the Study

One of the main challenges of this research is the difficulty of controlling all cultural variables. Even within a single nation, cultures can differ and it is hard to account for every variance (Gibbs, 2017). Furthermore, the perception of metaphors is highly dependent on subjective interpretations which can differ greatly even among members of the same cultural group (Kövecses, 2005). The subjectivity makes it challenging to acquire firm conclusions regarding the cultural universality of metaphor aptness. The fact that the study's conclusions are limited to its target participants is another drawback. Given that the cultural differences in metaphor aptness can vary greatly across various populations, the findings might not apply to other cultural groups. Furthermore, participants' English proficiency was standardized by their school via a variety of exams, however, it is possible that different individuals' levels of linguistic proficiency were different. Additionally, the fact that every participant in this study is from a multicultural nation (Akwuebu, 2018; Cheraghi, 2021; Kakışım, 2018) as many other countries and

this may limit the generalizability of the findings to more homogeneous societies. Studies that concentrate on participants from different cultures may not greatly represent the cultural diversity within a nation and this might impact people's comprehension and application of metaphors. Lastly, in the study, participants replied to questions about whether a parallel relationship between just two relationships was acceptable. However, it cannot be claimed that just two parallel relations are triggered in the mind when one is processing a metaphor. In other words, as the metaphor is processed, further relations may be established that correlate with it. In conclusion, while this study provides valuable insights into cross-cultural variation in metaphor aptness, it is important to acknowledge these limitations.

2. RELATED LITERATURE

This section contains two subsections: theoretical framework and literature review. The study's underlying theory, metaphor aptness and the theories that led to or are connected to it are discussed in the first subsection. The second subsection firstly reviews the literature on metaphor comprehension and some commonly researched variables along with that. Later, it reviews the related literature on the various concepts which were studied in the frame of conceptual metaphor and studies on cross-cultural and linguistic variation in the frame of conceptual metaphor. This section lastly reviews the studies related to systematicity of metaphor aptness and its relation to the factors such as structural features, priming and conventionality. The reviewed papers are presented thematically to provide context for the analysis and discussion of the data gathered for the present study.

2.1. Theoretical Framework

This section consists of three subsections: metaphor, metaphor and thought, and metaphor and culture. In the first section, a change in metaphor's conceptualization and function is explained. Later, metaphor's connection to reasoning and perception and related theories such as neural theory and conceptual metaphor theory are introduced. Next section provides insight into metaphor's connection to culture and related theories such as aptness and conventionality.

2.1.1. *Metaphor*

Metaphor involves describing something by comparing it to something else, often not completely related, in a way that suggests a resemblance or an analogy between the two. By relating one topic to another, metaphors establish a comparison. "Is" is frequently used to indicate that one thing is another, as in the example "love is a journey". Mostly, people might consider a metaphor as words to include some artistic and rhetorical effect to communicate eloquently, and see that as a linguistic expression (Kövecses, 2015). Metaphor studies date back to early times in history. For centuries, the predominant approach to examining metaphor has been the rhetorical method. According to traditional linguistic theory, metaphors are linguistic anomalies that result in illogical or wrong phrases. Traditionally, theories regarded metaphor as an anomaly in language or it was considered dispensable as a purely linguistic element (Fan, 2018). The cognitive linguistic view, however, supports the idea that metaphors are more than linguistic structures as they are based on experience and motivation influencing the thought (Lakoff & Johnson, 1980). It argues that it is crucial to provide an explanation of how

metaphorical source concepts were chosen where no clear pre-existing, practical similarity between two entities can be found.

At its core, metaphors involve understanding one concept in terms of another (Lakoff, 1980). They are mostly used in everyday life to help individuals conceptualize and understand abstract or challenging ideas by connecting them to more concrete and known ideas and concepts. For example, when people say "love is a journey", they're using the idea or concept of journey to understand and talk about the idea or concept of love. Its help with understanding complex ideas is also because metaphors aid in conveying vivid imagery or strong mental images formed in minds (Gibbs et al., 1997).

Furthermore, metaphors are significant in social contexts shaped by our cultures since it reflects and shapes people's understanding of the world (Su, 2002). They may enable people to have a sense of belonging in a certain group because they possess mutual cultural beliefs and norms. They are like symbols of a culture. For instance, the metaphor "America is a melting pot" symbolizes America's diversity of cultures. Same ideas might be comprehended and discussed differently in various countries and cultures as different cultures might have unique metaphors to describe their experiences and values. For example, Soriano (2003) compared mappings of metaphorical expressions in Spanish and English. Even though there were many mappings that were included in both languages, it was found that people "get fried" but they don't "stew" in Spanish when they get angry. It is the other way around in English. 'Stewing' is associated with lust or intense excitement in Spanish unlike in English.

All in all, metaphors help people understand the world through its effective cognitive function. Understanding how metaphors are formed and what role they have in our

questioning might allow us to comprehend the relation between language, culture and cognition.

2.1.2. Metaphor and Thought

M.Benedek et al. (2014) studied the human brain while the participants worked on the production of metaphor. It was found that in order to conceive and create original metaphors, one must be able to adjust semantic memory in a flexible way while developing metaphors. A part in the brain (angular gyrus), which is significant in strategic knowledge retrieval and complex information integration was mostly activated during the metaphor production. The findings show us that metaphors are more than semantic entities gained through exposure. Gaining an understanding of the complex interaction of the mind and metaphor is vital to understand how individuals perceive and convey information. Lakoff and Johnson (1989) assert that metaphor has its roots in our embodied knowledge and experiences. Our understanding of abstract concepts is influenced by our sensory-based physical experiences and interactions with the outside world, leading to metaphorically grounded mappings of ideas. For instance, our perception of light and brightness serves as the foundation of the metaphor "bright idea". In the following subsection, the variety of theories related mostly to the cognitive side of the metaphor will be presented.

2.1.2.1. Neural Theory. Fauconnier and Lakoff (2009) stated that the more people learn about the brain, the more properties of metaphor are explained. Thus, one must grasp its relationship to the brain to comprehend the process in people's mind. Neural theory of metaphor might account for the explanation of metaphors' relation to thought. The theory proposes that our understanding of abstract concepts is shaped by the same neural circuits that are used for sensory and motor experiences, leading to metaphorical

mappings that reflect our bodily experiences. Entities of metaphors are categorized into relations in the same way neurons are categorized in our brain. It was found that the same neuron can be functioning in different neuronal groups through networks with nodes, connections, degree of synaptic strength and time lapses at synapses (Feldman, 1970, as cited in Lakoff, 2009). Lakoff (2009) proposed that these connections happen in the same way as we form connections between entities of a metaphor when we use a concept to describe another concept by using its one or more entities that have already been coded in our minds. According to neural theory, primary metaphors– the ones thought to be grounded in people’s sensory and motor experiences– serve as the foundation of conceptual metaphors.

2.1.2.2. Conceptual Metaphor. Following the introduction of the conceptual metaphor theory by Lakoff and Johnson (1980), the relationship between metaphor and mind along with the metaphor’s shift from literature to cognition have become popular in research. The basic idea of the conceptual metaphor theory is that abstract ideas are comprehended through more tangible, bodily experiences. According to Lakoff and Johnson, we use metaphors to grasp abstract concepts and think about them by projecting them onto more tangible, embodied experiences. This suggests that a major portion of our conceptual system is metaphorical.

The conceptual metaphor theory states that concepts are connected through mapping while describing one concept through another. The formation of metaphors through mapping involves several cognitive processes that reinforce our understanding of abstract concepts. It starts with identifying source and target domains. Source domain (Y) is a concept chosen among concepts we are familiar with and use to understand another concept (target domain: X). For example, in the metaphor "time (X) is money (Y)",

"money" is the source domain (tangible), and "time" is the target domain. The mapping of source domain elements onto target domain elements is the second stage. One may map the concept of "value" in the target domain (time) from the source domain (money) in the example "time is money". We are able to comprehend and discuss time in terms of the more tangible idea of money thanks to this mapping. Last stage is applying the metaphor into our language and thinking to express abstract ideas in terms of concrete concepts. For example, saying something like "I don't have enough time" can provide the sense that time is finite and important, just like money.

The conceptual metaphor theory (CMT) suggests that mappings which form metaphors are not arbitrary, but based on structures derived from our frequent interactions with the world. (Johnson 1987; Lakoff, 1987). Image schemas are basic recurring cognitive structures that emerge from our bodily interactions with the world, reflecting the embodied nature of human cognition. For example, when one is tired and overwhelmed with work, s/he can say "I'm drowning in work. " This metaphorical expression links the abstract concept of being overwhelmed (work) to a concrete experience (drowning), highlighting how our bodily experiences (like struggling in water) influence how we understand abstract concepts. Image schema focuses on the repeated patterns of sensory-motor experiences that underlie our understanding of concepts through the physical touch with the surrounding. Therefore, image mappings occur after the embodiment of concepts through bodily experience. Image schemas such as containment (in, out, containment), source-path-goal (moving from one point to another), and part-whole (understanding parts in relation to a whole), verticality (up and down) provide the cognitive basis for metaphorical mappings as they structure our understanding of spatial and sensorimotor experiences. Take the concept of "up" and "down" for example. These spatial terms are

often used metaphorically, such as saying "prices are going up" or "morale is down". The verticality image schema serves as the foundation for these metaphors. The word "up" is associated with positive or increasing concepts (see, e.g., Kövecses, 1991; Lakoff & Johnson, 1980; Strauss & Allen, 2008), and "down" is associated with negative or decreasing concepts (Kövecses, 2010; Pritzker, 2003; Sun, 2010). This image schema is derived from our physical experience of gravity and spatial orientation. Overall, embodiment provides the basis for the development of image schemas, which in turn are used in metaphorical thought to understand and think about abstract concepts.

The conceptual metaphor theory distinguishes between several types of metaphorical mappings (Lakoff & Johnson, 2003). The first one which is a structural metaphor, maps the structure of one domain onto the other. An example would be the sentence "He attacked every weak point in my argument". This illustrates a verbal argument structure which is mapped onto the structure of a battle. The second one which is an orientational metaphor involves mapping spatial orientations onto abstract concepts. For instance, in the sentence "I'm feeling up today", the word "up" alludes to "happiness". The final type of mapping is called the ontological metaphor. According to this mapping, our experiences are conceptualized as an object, substance, thing, or human. This means that they consist of container, entity, and personification metaphors. For example, the sentence "you are in trouble" depicts the subject "you" as an object kept in a container.

Metaphorical highlighting and hiding (Kövecses, 2010) are the terms used to describe how conceptual metaphors highlight certain parts of two concepts while hiding others throughout the mapping process. For instance, when someone uses the metaphor "Your argument has a lot of content", the concept of "argument" as a "container" highlights the content and simpleness of the argument. Simultaneously, it hides other aspects like

construction, strength, and control. Similarly, in the metaphor "an argument is a war", the content of the argument is neglected while the sole aspect that is highlighted is control, the content of the argument is neglected. Another feature of metaphorical mapping is metaphorical utilization. It occurs when speakers frequently employ only some aspects of a source domain to comprehend a target in contrast to highlighting (Kövecses, 2010). For example, many aspects of a building (source domain) such as rooms, corridors, a roof, chimneys, being on a street, having people inside are not used in the metaphorical comprehension of an argument when the metaphor in the following sentence is analyzed: "We've got the framework for a solid argument". At this point, only the aspect of "establishing a structure" is meant.

Conceptual metaphors frequently have metaphorical entailments (Lakoff & Johnson, 1980). It is the process of mapping rich further information about a source onto a target. It refers to the way in which a primary metaphor can entail or imply other metaphors. It explores the additional meanings and implications that arise from the use of metaphors beyond their literal interpretation. It suggests that when we use a metaphor, we are not just using it as a simple comparison but are also implying certain underlying ideas or consequences based on the metaphorical mapping. It occurs when the use of a primary metaphor automatically brings to mind other related metaphors. For example, it is not usual to map war heroes as political leaders since not all wars create war heroes, thus, describing political leaders as war heroes is not a constituent mapping in the metaphor (Adamson, 1996, as cited in Kövecses, 2010). However, it still may be an element of the concept of war to understand politics. Therefore, it adds layers of meaning and implication to the metaphor, enriching our understanding and communication of abstract

concepts. The concept of entailment is important because it shows how metaphors can convey complex ideas and emotions in a precise and powerful way.

2.1.2.3. Structure Mapping Theory. Gentner and Bowdle (2001) suggested that a structural alignment between base and target domains is activated first and a direct inference from the base domain into the target domain follows it when a metaphor is being processed during comprehension. For instance, in the metaphor "some suburbs are parasites", "existing in dependence on a host" is produced by the first symmetric alignment procedure. Further concepts are then projected from the base domain to the target domain using directional inference processes, such as "harms its host". As a result, while later processing in structure-mapping is directional, initial processing is symmetrical (Wolff, 2011).

2.1.2.4. Scope, Meaning Focus and Central Mapping of Metaphor. Another approach in order to study the conceptual metaphor is to understand which target domain(s) applies to a particular source. A single source concept can describe a wide range of particular target domains. For instance, the idea of "constructing" is applicable to relationships, jobs, businesses, and life, in addition to theories. This is an issue referred through the scope of metaphor by Kövecses (2005). It refers to the range of use of the specific source domains to the specific target domains. Other notions related to this matter are the main meaning focus of a metaphor and central mapping (Kövecses, 1995). The main meaning focus typically transfers to its target the conceptual information linked with the source that is culturally accepted. For example, the concepts "relationships, careers, company, life" described by the concept "building" share a major theme that is the main meaning orientation. The main meaning focus of all these concepts have a connection with "strength, structure and creation". On the other hand, central mapping is

the one that transfers the primary meaning of the source onto the target and is the source from which other mappings originate. For instance, mapping of systems mentioned above onto building might have eight concepts: foundation (basis of the system), framework (overall structure of the system), additional element to support the framework (additional element to support the system), design (logical structure of the system), architect (maker of the system), process of building (process of constructing the system), strength (stability of the system), and collapse (failure of the system). These mappings can be combined into three: building (creation), physical structure (abstract structure) and physical strength (abstract stability).

2.1.2.5. Class Inclusion Model. In contrast to matching models, metaphorical statements are treated as explicit class-inclusion assertions in the class-inclusion theory rather than as implicit comparisons (Glucksberg & Keysar, 1990). In this view, rather than connecting the source and target domains symmetrically, the base domain is used to create an abstract metaphorical category that the target domain joins. For instance, the topic "My job is a jail" is placed in a category that is not the same as the one that is literally described by the vehicle (Y in the metaphor design "X is Y") idea "jail". Rather, it is a superordinate category that encompasses the topic—the category of unfavorable, restricted, pressurization, and unrewarding circumstances—and is symbolized by the literal vehicle. Therefore, linguistic metaphors involve dual reference as they refer to both a literal and a general metaphorical category. The metaphor vehicle has these meanings. It represents both the category of unfavorable, involuntary, etc. circumstances and its literal counterpart, which is jail (Glucksberg & Keysar, 1993). In brief, it is asserted that the target domain (topic) is comprehended as a member of the ad hoc category and the more salient domain is the ad hoc category. For example, in the metaphor "The room is

an oven", the oven represents a category of "things being very hot" and the room is a member of this category as it is hot. It was also stated that the domains cannot be reversible since the metaphor will be anomalous. For instance, "The oven is a room" will become anomalous (Glucksberg & Keysar, 1990).

2.1.2.6. Online and Offline Understanding of Metaphor. Online and offline understanding of a metaphor is about the processing time of the metaphor. When someone speaks or interprets things at the time of speaking, it is known as a short-term process of metaphorical comprehension. This is also called 'online understanding'. Long-term memory or the outcome of a long historical-cultural process can also serve as the foundation for metaphorical knowledge. This type of understanding is known as offline understanding (Kövecses, 2015). While online understanding makes it possible for us to immediately understand the intended meaning of metaphors in real-time communication, offline understanding enables deeper reflection and study. In 2001, Boroditsky used primes for horizontal and vertical orientation to study the metaphor "time is horizontal/vertical". A prime is an initial stimulus that when present, makes it easier for a person to react to a later stimulus. Several languages including Mandarin Chinese, conceptualise time in both directions in contrast to English which views time as horizontal. Boroditsky discovered that after a vertical prime, Mandarin speakers responded to lines such as "March comes earlier than April" more quickly than English speakers, whereas English speakers responded more quickly after a horizontal prime. In the same experiment, when given a horizontal prime instead of a vertical prime, speakers of both Chinese and English took less time to answer questions. This implies that speakers of various languages may have conceptual metaphors of time that are either vertical or/and horizontal in their thoughts. Since this use is salient, this may affect their

processing time of the ideas. There are more studies like the one of Thibodeau and Durgin (2011) which also states that participants' aptness ratings are higher when the metaphors are presented with a same sense prime earlier than their judgements. These show that being exposed to the metaphor before makes it more apt.

2.1.3. Metaphor and Culture

Even Zohar (2003) defines culture as a repertoire, emphasizing that it encompasses the diverse possibilities through which individuals within a group organize their lives. This repertoire is continuously evolving, characterized by shifts in intensity and volume over time. Culture, therefore, is not static but rather dynamic and evolving through ongoing interactions and exchanges of values and beliefs among people. Metaphorically, culture can be seen as a tapestry woven from the threads of these interactions, where each thread represents a unique aspect of societal norms, traditions, and shared experiences. Just as metaphors offer creative expressions to convey abstract ideas, culture provides a framework through which individuals and communities make sense of their world and navigate their profound influence on language, cognition, and societal dynamics, shaping how individuals perceive, interpret, and interact within their cultural contexts.

The metaphor "bite the bullet" means endure a painful or difficult situation with courage and resilience. There have been suggestions that its origins may be traced back to the historical practice of having patients hold a bullet between their teeth as a means of coping with the pain of surgery in the absence of anesthesia (Boston, 2021). The mapping of this metaphor can be as "bullet is pain" and "biting is endurance". This may not be apt for second language speakers because their culture might cause them to interpret the bullet as a threat while bitten. This is only one example of metaphors which

are quite related to culture. It is highly possible to encounter the same metaphor in various languages. Kövecses (2002) argues that if we observe a metaphor in several unrelated languages, we are left with a question of why this conceptual metaphor is present in so many distinct languages and cultures. Kövecses (2006) searched and examined many of the linguistic expression examples of emotion concepts such as "happiness" and "anger" in English, Japanese, Hungarian, and Chinese, and found that certain mental metaphors have the capacity to be almost universal or universal at the generic level. Upon conducting a thorough analysis, he found that the conceptual metaphors were either primary or simple metaphors and/or complex metaphors that derived from universal human experiences. Beside the universal metaphors, metaphors are deeply intertwined with culture, reflecting and shaping cultural beliefs, values, and practices. According to Lakoff (1990), if we understand metaphors as rooted in our physical or social/cultural experiences, then the metaphorical structure of a culture's most basic conceptions will align with its most basic ideals. Su (2002) points out that a metaphor that is widely accepted in one culture may have completely different connotations in another. For example, in the West, the dragon is associated with evil and in the East, it is a classic symbol of royalty.

According to Lakoff and Johnson (1980), a culture's core values align with the metaphorical organisation of its conceptual framework. They argued that the deeply rooted beliefs in our culture are not self-driving independent. For instance, Soriano's study in 2003 revealed that the concepts of "boiling" and "burning" are used by both English and Spanish speakers to describe the consequences of anger on a person. But when we get into more detail and address cooking experiences, there are projections that are unique to either English or Spanish. People "get fried" but do not "stew" in Spanish and in English the opposite is true. Cooking habits and cultural preferences could be the driving

force behind this. Furthermore, the intensity of the "light" in one's eyes is mainly used in English as a metonymic sign of happiness. For example, the verbs "gleam, glint, shine and sparkle" can all be used to characterize someone who is joyful (Kövecses, 2010). However, in her study (1995), Yu points out that in addition to the eyes, Chinese people tend to elaborate more on the eyebrows when expressing happiness. These examples may demonstrate the ways in which diverse cultural perspectives may be applied to the same idea. It is unrealistic to anticipate that all languages will use the same metaphors.

Two notions that are linked to the relation between metaphor and culture are cross-cultural and within-culture variation. Each culture develops its own set of metaphors to make sense of the world. These metaphors are deeply embedded in the cultural and linguistic fabric. Kövecses (2015) distinguishes two types of cultural variation which are cross-cultural (intercultural) and within-culture (intracultural). Intercultural variations arise because of the differences in cultural experiences, beliefs, and values, leading to diverse metaphorical concepts across cultures. For example, the natural and physical environment is an important factor causing intercultural metaphor variation since it shapes a language, primarily its vocabulary and consequently its metaphors. Dirven's study (1990) underscores how language and culture intertwine in shaping metaphor use. His analysis of Dutch and Afrikaans Dutch, spoken in some parts of South Africa, reveals differences in their metaphorical expressions. While Dutch metaphors for nature focus on water, light, and other serene elements typical of northern European countries, Afrikaans' metaphors include more dynamic and varied natural imagery, including mountains and animals. Dutch nature metaphors notably lack animal-based metaphors, unlike Afrikaans. On the other hand, intracultural metaphor variation refers to differences in metaphorical expressions within the same culture. These variations can occur based on factors such as

age, gender, social status, personal history or regional differences within a culture or through time. Certain childhood or student experiences can influence the metaphors used in adulthood. For example, according to Stearns (1994), the intensity of romantic love in the Victorian period stemmed partly from an exaggerated maternal love which necessitated strong adult passion for individuals to free themselves from maternal ties. Additionally, intense, spiritualized passion was sought as a balm for the soul akin to the solace once provided by religion. Romantic love became less intense as familial bonds were weaker and religion became less significant which is a reflection of shifting social and cultural dynamics.

2.1.3.1. Conventional and Novel Metaphors. Conceptual metaphors can be arranged according to conventionality on a continuum or scale (Birdsell, 2018). Some conceptual metaphors, like "love is fire" are well-known and frequently used in speech communities because they are deeply ingrained, while others, like "love is a collaborative work of art" are far less common. Frequently used ones are conventional metaphors while the less common ones are called novel metaphors. Conventional metaphors for the same subject may vary among cultures. Whereas Vietnamese speakers may perceive sadness as "stale", English speakers might perceive it as "darkness" (Nguyễn, 2014). These variations mirror cultural diversity in the sense that time is viewed and appreciated.

2.1.3.2. Metaphor Aptness and Conventionality. Aptness and conventionality are two concepts which have been studied to understand how people comprehend a metaphor. It is widely accepted that one of the most important factors in determining how easily people can understand a comparison is how quickly they can identify the apparent similarities between the vehicle and the topic (Chiappe et al., 2003).

Many researchers described aptness as "the extent to which a comparison captures salient features of the topic in question" (Chiappe & Kennedy, 1999; Katz, 1989; Tourageau & Sternberg, 1981). Jones and Estes (2005, 2006) states that a metaphor is considered to be apt when salient features of the source are linked to relevant aspects of the target domain. For instance, Chiappe and Kennedy (1999) claims that it is difficult for the argument "evolution is a lottery" to be perceived as apt since the constructive feature of evolution is not captured by the comparison. However, "evolution is a blind watchmaker" is easier to be apt because it includes both features of evolution: the process and the product. Jones and Estes (2006) asserts that there are two stages for a metaphor to be apt. First, the vehicle term (source domain) must possess salient property for attribution. Second, the salient property must be relevant to the topic.

According to Jones and Estes (2005), aptness is different from conventionality in that it considers the topic as well as the vehicle, whereas conventionality just considers the vehicle. Conventionality indicates how well-known a metaphor is (Thibodeau and Durgin, 2011). It does not mean "arbitrary" as in linguistics since it is strengthened by culture. In other words, it is how well a metaphor is embedded in everyday use by a linguistic community. For example, the arguments "Love is a journey" and "ideas are food" are high in conventionality as they are strong ways of thinking about the abstract domains in the arguments (Kövecses, 2010). Aptness and conventionality have been often compared or studied together in the field of conceptual metaphor. One of the studies that compared aptness and conventionality was of Estes and Jones (2006) who found that ratings of aptness and conventionality were highly correlated. Similarly, Thibodeau and Durgin (2011) found that these ratings were correlational and aptness was found to be correlated with the observed frequency. When conventionality of a metaphor is high,

aptness of that metaphor has usually been found high. However, it does not mean that one has a direct effect on the other. For example, a conventional metaphor may not be apt if the topic does not fit the vehicle's common figurative meaning, while an unconventional metaphor may still be apt based on its qualities.

2.2. Literature Review

This chapter presents a review of the related literature on metaphor comprehension, conceptual metaphor which was studied cross-linguistically and culturally and on metaphor aptness. First, it presents a summary of studies focusing on different understandings and uses of conceptual metaphor between/among languages and cultures. Next, it reviews studies on metaphor aptness.

2.2.1. Research on Metaphor Comprehension and Variables

Two major components that have been examined with metaphor comprehension are the interaction between L1 and L2 and context, followed by a minor component which is age. To begin with the L1 and L2 interaction, Chen and Lai (2014) tested whether having the same conceptual metaphors in Taiwanese EFL learners' L1 and L2 affected their metaphor comprehension. The researchers designed a metaphor comprehension test which consisted of metaphors from dictionaries and corpora. The tool included sentences like "Feeling shocked by her husband's disloyalty, she exploded at last and cried out." They tried to keep the word number of each sentence similar to provide a similar stimuli. When the participants were asked to translate the sentences into their target languages, they were asked to provide the overall meaning. It was found that similarity of metaphors in L1 and L2 made the comprehension easier for the participants. It was also stated that participants' interpretations of the same metaphor in both languages is a sign of

universality of culture. Arif and Abdullah (2017) analyzed Iraqi EFL learners' metaphorical comprehension in L1 and whether it affected L2 metaphor comprehension or not. Participants were presented with 30 Arabic and 30 English proverbs respectively. 4 distractors preceded each proverb, one of them was the correct interpretation. Correct ones were calculated to check the level of their comprehension. It was found that there was a correlation between the L1 and L2 metaphor comprehension. The researchers stated that their findings aligned with Cummins' (1979) argument which proposed that L1 proficiency predicts L2 development. The participants who had better metaphor comprehension in Arabic showed better understanding of metaphor in English. Unlike Arif and Abdullah (2017), Alsadi (2016) stated that Qatari EFL learners struggled to understand some metaphors because of culture and discourse since the learners could not differentiate between the literal and metaphor statements. The researcher also added that similar vocabulary in both languages can limit metaphorical comprehension since it can cause confusion. In 2016, Zibin researched the metaphorical comprehension of Jordanian EFL learners and analysed whether it affected the participants' L2 metaphor comprehension. Among four options in a multiple choice test, participants were asked to choose the option which included a correct metaphor. They could also choose the option *I don't know*. The researcher included different types of metaphors which were grouped according to their conceptual basis, similarity in two languages. It was found that metaphor comprehension of the participants varied depending on the type of the metaphors. It was also found that linguistic similarity between two languages eased the comprehension.

Horvat et al. (2022) compared the metaphor understanding of the multilingual and monolingual participants, and of children from two different age groups. It was found that

multilingual participants made more sense of novel metaphors than monolinguals, but their responses were similar in literal and conventional metaphor. Also, the response time of each group did not vary in their research, which might show that cognitive load was not higher in any group compared to the other. Unlikely, Hessel and Murphy (2018) examined the metaphor comprehension of two age groups of children through assessment of verbal (hours crawl by) and nominal (become a shivering animal) metaphors in the UK. They also compared the understanding of children with EAL (English as an additional language) and monolingual children. Younger group was aged from five to six while the second was from six to seven. The researchers included the metaphors in their tool after making sure it was included in Oxford Children's Corpus at least once. However, they also included some low frequency metaphors as a novel version of them to check how well the participants could understand them. During the data collection, only two metaphors were tried to be presented in each story, concept check questions were collected through puppets. They found that the older children had larger vocabulary and better understanding of metaphors. The researchers commented that this must be because of their well-formed vocabulary knowledge. Also, it was found that children with EAL had smaller receptive vocabulary and lower metaphor comprehension than monolingual children even though their performance was better when the task was easier. The researchers concluded that this can be because when the task is harder, the language comprehension is harder or incomplete. Ichien et al. (2024) asked participants from different age groups to choose the correct interpretation of the metaphors. The researchers found that both older adults and younger adults were successful in metaphor comprehension when the metaphors were easy, however, older ones had a better understanding of novel literary metaphor understanding. Willinger et al. (2019) also

found that comprehension of the participants from different age groups varied. Older participants had better metaphor comprehension.

The studies on context and its effect on the metaphor comprehension are prevalent. For instance, Ortony et al. (1978) provided participants with idiom, literal and control versions of the metaphor and idioms. Context type and context length were found to be effective in the comprehension. The researchers concluded that a related context determines the ease in the metaphor comprehension. Shinjo and Jerome (1987) also found that context helps with metaphor understanding, and the type of the prime affected the comprehension, however, it did not affect the speed of the comprehension. Suñer (2018) analyzed the effect of the context in comprehension of metaphorical idioms. It was found that context was referred when a similarity between the domains was not found and context was an effective strategy in L2 metaphorical idiom comprehension. Many studies on priming (Bambini et al., 2016; Bizzoni & Lappin, 2018; Thibodeau & Durgin, 2011) also supported that context is significant in metaphor understanding.

Even though it is limited, effect of individual differences on metaphor comprehension has been another research topic. Dimitrijevic and Tadiac (2007) found a relationship between verbal intelligence and metaphor understanding. The researchers also found that the participants who were more open to experience and more hypersensitive (depressed etc.) were prone to better understand the metaphors. Kazmerski et al. (2003) found a correlation between the IQ levels of the participants and their metaphor interpretations. Paola et al. (2019) found that children understand metaphors better when they have better analogical abilities. Briner et al. (2018) stated that there is a relationship between general knowledge, age and metaphor comprehension. People in different ages with different level of general knowledge can rely on different parts of the brain during conventional

metaphor comprehension. Kennett et al. (2018) found that high creative individuals are faster and more accurate in metaphor comprehension. Willinger et al. (2019) found an effect of cognitive flexibility under pressure, analogical reasoning on metaphor comprehension.

2.2.2. Research on Cross-Linguistic and Cross-cultural Variation of Metaphor

The research on the relationship between culture and metaphor has always been measured through the language differences. Namely, language is taken as a symbol of culture. For example, mappings of metaphorical expression in two different languages have been studied from a cross-cultural perspective (Aksan & Kantar, 2008; Gathigia et al., 2018). Thus, the present literature about the cultural variation of metaphor includes studies related to the metaphorical expression differences between different languages. Moreover, the present study takes metaphor as a sign of ideas and perception of people as in conceptual metaphor theory. Since there is no study (except the study of Eskandari and Khoshshima in 2021) only about the cross-cultural variation of metaphor aptness, studies on cross-cultural variation of metaphor will be mentioned in this subsection to offer an insight into the cross-cultural variation.

Cross cultural and linguistic variation of metaphors have been usually studied by examining concepts in the minds of people from different countries that possess different languages. The concepts studied for the relationship between culture and metaphor have been various. While some concluded that universal metaphors are more frequent, others revealed differences between the languages. Quy (2016) conducted a study about the conceptual metaphor "ideas are food" and they compared the similarities and differences of the metaphor between English and Vietnamese. It was found that both languages share similar sets of conceptual mappings. For example, both languages included the

conceptual metaphor "forming an idea is cooking and preparing food". However, there were differences in the sub-mappings like "eating is having sex" that predicates a sex appeal in English but not in Vietnamese. Moreover, it was found that vinegar is used to link ideas in Vietnamese while there is no such use of it in English. The researcher states that it might be due to frequent use of vinegar in Vietnam. Gathigia et al. (2018) studied the variation of death metaphors among the speakers of six different languages: Chinese, Farsi, Gĩkũyũ, Russian, Spanish and Sweden. The data was collected through individual interviews and participants were asked to tell five words/metaphors that are used to describe death in the languages studied. After identifying various conceptual domains, the researchers categorized them into four conceptual domains. These domains were "death is a journey" (the one that was the most common in all the languages), "death is the end", "death is a rest" and "death is a summons". Gĩkũyũ contained the biggest number of death metaphors. The researcher concludes that culture, language and cognition of the people bring about the variety of conceptual domains across the languages. Alqarni (2022) studied the sense of "smell" as a conceptual metaphor and compared its use in Arabic to English. The researcher collected the data from Sketch Engine for Arabic and COCA for English. It was found that "smell" fundamentally had the same conceptual elements in Arabic and English. It was used for expressing emotions and there were more abstract domains conveyed in Arabic than it was in English even though most of the conceptual metaphors formed in Arabic were also formed in English. The most salient abstract domains for the target domains that were shared in both languages were control, intensity and existence.

Orientation of metaphors in different languages has also been a search topic in the frame of conceptual metaphor. For instance, Machakanja (2006) compared and contrasted

the orientational metaphors in English and Shona. Although metaphorical expressions were not the same, the researcher found similarities at the conceptual level. For example, orientational metaphors "happy is up", "sad is down", "having control is up" and "being under control is down" were found in both languages. The researcher concluded that the similarities were motivated by the embodiment of the concepts. Conceptual metaphors "front is good" and "back is bad" were also analysed in the study. They were observed in both languages like the orientation of "up/down". However, different conceptual metaphors were found between the languages. For example, "life is a motor car" was not found in English unlike in Shona. In 2018, Chen et al. studied horizontal spatial metaphors for morality. The participants were Han Chinese students (30) and Hui Chinese students (30). In the study, participants were expected to judge the morality of the words they saw either 5cm to the left or the right of the centre of the screen. Hui students rated the words on the right more moral than it was on the left. Han students didn't have a bias. The researcher argued that this finding supported the statement of Lakoff and Johnson (1980). They stated that spatial metaphors were influenced by physical and cultural factors. The study also revealed that participants from both groups evaluated the moral words faster. The researchers concluded that it might be because of the dominant influence of the Confucian philosophy in China in which Chinese people are taught to believe in the goodness of human nature and the participants tended to link the words to moral meanings through themselves. The researcher states that the last finding did not correlate with the findings of Wang and Lu (2013) who had studied American college students' judgements on morality.

Another frequently studied concept in conceptual metaphor research has been emotions and their perception in different languages along with their cultures. Ansah

(2010) analyzed two emotional concepts "anger is a hot fluid in a container" and "love is a journey" in English and Akan. English data was based on the conceptual metaphors analyzed earlier and the Akan data was created by the participants. The analysis revealed that there were both similarities and differences between the concepts in both languages. For example, lovers are conceptualized as travellers in both languages. However, a love journey happens on water or on land in English while it occurs only on land in Akan. The researcher states that this might be due to cultural salience because the Akan people live in a tropical rainforest with few rivers and streams while England is an island. Another example of dissimilarities was the redness around the neck. It has been reported in the conceptualization of anger in various languages such as English, Hungarian and Chinese, but this element is not included in Akan metaphors. The researcher argues that unlike the previous languages studied, Akan is a language of dark complexion cultures and that might have caused the difference. In addition, Aksan and Kantar (2008) has also studied the concept of "love". They found that many metaphorical source domains are the same in English and Turkish. However, it was found that Turkish speakers adopt the source domains of "pain/suffering, ineffability, deadly force" unlike English speakers. The researchers conclude that Turkish speakers seem to adopt the traditional Sufi philosophy of love which is being the passive sufferers of love. Another difference was about the conceptual metaphor "love is a journey". This journey leads to a union in English, but this concept includes the impossibility of attaining the goal (union) in Turkish. Shared conceptual metaphors like "love is a constructed object" and "love is an economic exchange" were other findings of the study. Safarnejad et al. (2014) compared the concept of "happiness" in English to Persian. The English data were gathered from the works of Lakoff and Kövecses (Kövecses, 1991; Lakoff, 1980; Lakoff & Kövecses, 1987) and the

Persian expressions were gathered from literary texts. It was found that both languages included the conceptual metaphors "happiness is up, happiness is light, happiness is fluid in a container and happiness is animalistic behaviour". Nevertheless, mappings of the metaphor "happiness is energy" differed in these languages. In Persian, the energy, electricity was found to be referring to energy in the eyes while it refers to physically high energy like dancing. In 2015, Kövecses et al. compared anger metaphors across four languages: English, Spanish, Turkish and Hungarian. Their data was corpora, newspapers and magazines of the last decade. The most frequent conceptual metaphor for anger was found to be a "container" in English, Turkish and Hungarian while it was a "possessed object" in Spanish. It was found that the concepts "container, opponent, possessed object" were the most salient ones in different order in all the languages. Unlike other languages, the conceptual metaphor "anger is a natural force" was found in the top three in Turkish.

2.2.3. Research on Metaphor Aptness

Research on metaphor aptness have mostly focused directly on the factors that affect it on the comparison of the metaphor to the other figurative forms like similes in order to understand the reasons of preference of these forms to shed light on their formation process, or on the metaphor aptness as a factor that affects concepts like metaphor comprehension or processing. Participants in the greater part of the research were native speakers of English, which reduces the effect of variables such as culture and language.

To begin with, one of the studies which focused directly on the semantic features of a vehicle (a domain in a metaphor) to understand the metaphor aptness was of Vahdat et al. (2016). Participants rated the relevancy of the semantic properties of a vehicle to the topic. For example, the semantic properties of the metaphor "discipline is a fertilizer" was

presented in the following way: "discipline: being on-time; progress; planning; law; future success", "fertilizer: chemicals; farming; fruit; giving strength; growth". The results showed that there is frequently a highly salient aspect with a degree of relevancy that is noticeably higher than other features within this broad range of relevancy. The metaphorical statement is apt and comprehensible because of this remarkable aspect of the topic or vehicle. In other words, it produces a high degree of topic and vehicle matching. When the topic and the vehicle work together to create a nominal metaphorical statement, the comprehender can understand it with ease. Put differently, this feature serves as the primary basis for deriving the intended metaphorical meaning while filtering out and disregarding meaning-related elements during the metaphor interpretation process. Mcquire et al. (2017) studied the link between the people's experience and their aptness of metaphors through the concept of beauty. They compared the metaphor aptness rates and beauty aptness of people from three age groups: young adults, literary experts and elderly adults. It was found that young and elderly adults rely on familiarity (conventionality) more than the experts do. In terms of rating the beauty metaphors, elderly adults based their beauty ratings on emotionality while experts based it on novelty and young adults did it on figurativeness mostly. They concluded that familiarity might contribute to the ease of processing. However, the experts' beauty ratings were negatively correlated with it.

Studies on the preference or formation of simile and metaphor revealed important findings related to metaphor aptness. Bowdle and Gentner (2005) did three experiments to suggest a new system of structure mapping theory which is about the relations in the target domain that are mapped onto relations in the base domain in a directed manner (Gentner, 1983). 32 native English speakers of college students rated aptness of the

statements including the types: novel figurative abstract (a mind is like a kitchen), novel figurative concrete (a beach is like a grill), conventional figurative abstract (faith is like an anchor), conventional figurative concrete (alcohol is like a crutch), literal comparison (an encyclopedia is like a dictionary) and literal categorization (a bracelet is an ornament). Higher aptness ratings were assigned to both literal comparison and conventional figuratives. Participants rated novel figuratives as the least apt among all the statement types. It was also found that grammatical form affected the aptness ratings. Similes (like) were more apt than metaphors. Abstract statements were more apt than concrete statements. Gluckberg and C.Haught (2006) suggested novel metaphors by adding adjectives to them and examined whether it affected the comprehension of the metaphor and whether it created an aptness difference between the comparison (simile) and categorization (metaphor) forms. There were three types of adjectives: adjectives that can be applied to both the topic and the vehicle of the source metaphor ("old" in the metaphor "my lawyer was like an old shark"), adjectives that only refer to the source metaphor's vehicle and not the topic. ("razor-toothed" in the metaphor "my lawyer was (like) a razor-toothed shark"), adjectives that are appropriate for the source metaphor's topic but unsuitable for the vehicle's literal referent ("well-paid" in the metaphor "my lawyer was (like) a well-paid shark"). Novel metaphors were not found to privilege comparison over categorization. However, these novel metaphors were found more apt in categorical form. Another study that compared the aptness of metaphors to similes was done by Hashemian (2011). He examined Iranian EFL undergraduates' preference of metaphors and similes. Participants chose the one they preferred when they were presented with metaphors and similes. No significant difference between the ratings of each form was found. The researcher also studied the aptness of each form separately. The participants rated the

aptness of each. No significant difference was found between the aptness ratings of metaphor and simile. The researcher concluded that it might be because the sentences mostly included concrete relationships unlike what Gibbs and Wales (1990) found. He stated that many participants preferred the metaphor form for abstract-tenor sentences while they mostly preferred similes for concrete-tenor sentences. Pierce and Chiappe (2009) studied the factors affecting the preference of vehicles to form similes and metaphors. Participants were given a vehicle and a topic and they were expected to form a simile or a metaphor depending on their preference. Conventionality and aptness were among the factors that were examined in the study. It was found that they were not correlational. In addition, higher property vehicles fostered the speed of the formation of figurative relations while conventionality affected the vehicle quality.

A concept that has been often studied along with metaphor aptness is metaphor familiarity or conventionality. Conventionality includes frequency since it is mostly about how much the speakers are exposed to specific concepts as being compared. Jones and Estes (2006) conducted a study including three experiments to examine roles of conventionality and aptness in metaphor comprehension. In the study, participants were presented with four types of metaphors: conventional and high apt (some runners are cheetahs), conventional and low apt (some skaters are cheetahs), novel and high apt (that fashion model is a rail) and novel and low apt (that football player is a rail). Each item was presented in a metaphor and comparison form and participants were asked to choose the one that sounded more natural. Categorization was found to be induced when a metaphor was more apt and comprehensibility of a metaphor increased as aptness did. It was also found that conventionality and aptness ratings were correlational. Thibodeau and Durgin (2011) collected metaphoric sentences from Jones and Estes' research to

study reasons for the correlation between aptness and conventionality and to compare the findings to the previous study. 100 high apt metaphors and conventional metaphors collected were modified into low ones as well. For example, a high apt metaphor "a rooster is an alarm clock" was modified as "a robin is an alarm clock". In addition, "the mind is a computer" and "the mind is a food processor" were given as examples of conventional and unconventional metaphors respectively. Native speakers rated their aptness and conventionality. As in the previous study, ratings of conventionality and aptness were correlational. Results also showed that aptness is correlational with frequency of the sentences given in the language database. Overall, the ratings were higher for the original metaphors but priming also increased the ratings of the low apt metaphors "robin is an alarm clock". In their last experiment, researchers asked participants to list metaphor vehicles' salient properties. For example, they were supposed to list properties like "aggressive" for the metaphor "my lawyer is a shark". The researchers stated that aptness ratings showed both the applicable and inapplicable salient features, and it was likely that participants were making holistic judgements when rating aptness rather than considering only one feature. Roncero et al. (2016) tested whether the variables aptness, conventionality and deliberateness (frequency and type) introduced by Steen (2008) are predictors of people's preference for expressing specific topics. They compared the aptness of the data gathered from the internet and the data gathered by participants in the lab and checked the regression of conventionality and aptness for both types of data. They disproved the concept "career of metaphor" which argues that frequent use of similes makes them metaphors in time. Aptness was found as a predictor of frequency. They argue that metaphors narrow the ways of connecting the vehicle to the topic. The simile form "X is Y" is a more open-ended way that allows more explanations.

The researchers concluded (contrary to some others like Glucksberg & Haught, 2006) that similes enabled comparisons between terms that are equivalent (both the topic and the vehicle hold their semantic types) whereas conceptual metaphors might require a type shifting. One example was given by Bowdle and Gentner (2005, as cited in Roncero et al., 2016):

"An example of this comes from Bowdle and Gentner (2005) analysis of how a metaphor such as 'Socrates is a midwife' would be interpreted, with predicate relations computed (or activated) by topic and vehicle yielding something such as (in simplified form), '(HELP (Socrates (PRODUCE (Student, Idea)))' and '(HELP (Midwife (PRODUCE (Mother, Child))) & (GRADUALLY (DEVELOP WITHIN (Child, Mother))) or, in prose, 'Socrates did not simply teach his students new ideas but rather helped them realize ideas that had been developing within them all along' p. 196). "

Metaphor aptness and its relation to the context is another relation that has been mainly studied. In 1983, McCabe analyzed metaphor aptness with and without context. She found no significant correlation between aptness with and without context. In 2016, Bambini et al. did electrophysiological experiments to measure the effect of context on metaphor. The researcher gained two brain responses—N400 and P600, while testing de-contextualized metaphors. Contextualized metaphors caused the P600 while de-contextualized ones caused both N400 and P600. The N400 effect has been usually observed in neurological metaphor studies signaling the absence of a predictive context and it prepares the reader for the metaphor. P600 mirrors interpreting the metaphor. The study of Masia et al. (2017) supported the findings of N400. It was emphasized in the study that the effect increases with unexpected elements which are not implied by a text or noun-verb combination. Bizzoni and Lappin (2018) approached aptness differently

from the other studies held earlier. They suggested that a metaphor is apt in relation to a literal expression that it paraphrases and they introduced the concept of ‘metaphor paraphrase aptness’. The researchers compared the sentence pairs including metaphors with paraphrases of both high and low level (e.g. a. "the crowd was a roaring river", b. "the crowd was huge and noisy"). The pairs were prepared with the help of corpus. It was found that the context affects the metaphor aptness as stated by McCabe (1983). The researchers also found a correlation between aptness of low level and high level pairs. In addition, it was established that context increased the aptness of both unlike what was found by Chiappe et al. (2003). Studies of Boroditsky (2001) and Thibodeau and Durgin (2011) that were cited in this paper earlier included tools with priming. A prime can be assumed as contextual information since it provides the participants with a context before seeing the metaphor and studies show that priming matters for metaphor comprehension, processing and metaphor aptness. For example, Thibodeau and Durgin (2011) uncovered that the participants’ aptness ratings were higher when the metaphors were presented with a same sense prime. In 2019, Zadeh et al. measured the effect of priming on metaphor aptness through the participants’ sensical ratings of metaphors. The researcher made participants rate metaphors like "time is a physician" in the first session of the data collection. The participants rated the same metaphors’ aptness when presented with a prime like "Patience is a magic. With magic, you can do everything". It was found that metaphors were rated more sensical when presented with a prime on the contrary to findings of Damerall et al. (2016) who found that literal primes did not significantly affect the comprehension of either low familiar or high familiar metaphors.

The research about metaphor aptness has always hosted participants of one society that includes participants who were English speakers only. Cross-cultural variation on

metaphor aptness was researched by Eskandari and Khoshshima (2021). Methodology of that research guides the present study. In their study, the participants were asked to rate the acceptability of metaphors. A comparison of Persian and English speakers' aptness was examined in the study. It was found that some metaphors had varying degrees of aptness between the groups.

2.2.4. Conclusion

The review of literature reveals that there is no study on cross cultural metaphor aptness variation except of Eskandari and Khoshshima's research (2021) that guided the present study. In the metaphor comprehension studies, the effects of variety of variables have been examined. However, there is usually a limited number of research on each variable separately. Effect of L1 metaphorical comprehension and context and priming have been commonly researched. In the studies related to cross cultural variation in metaphor understanding, both cross-cultural variation in metaphor comprehension and proof of universal metaphors have been found. Metaphorical mappings as well as metaphors themselves were examined to analyze the differences. The metaphors included a variety of concepts such as feelings, senses and ideas. The studies supported that the embodiment of concepts were usually universal although there were differences between languages studied. The researchers usually concluded that the differences in metaphor understanding were due to cultural differences such as common philosophies in the communities that the participants have been exposed to. Metaphor aptness was analyzed with a variety of purposes. All the studies have supported that some features in the metaphor vehicles and topic are salient and make the metaphor understood easily and quickly. In addition, conventionality of a metaphor, personal experience, structure of the analogy, frequency of the metaphors or words, and priming were generally found to be

effective variables in metaphor aptness even though there were a limited number of studies that concluded contrarily. Besides, metaphor aptness has always been studied through native speakers of English and the research about aptness has been about what triggers it. Furthermore, the effect of variables related to linguistic and demographic backgrounds on aptness has not been examined before.

3. METHOD

The methodology of the current study which consists of research design, participants, tools, procedure, and data analysis as subsections is explained. A brief outline of the study's research design is given in the first subsection; research design. Based on the information gathered from the study's background questionnaire, the participants are introduced in the second subsection. The third section, tools, introduces the questionnaire, the test used for metaphor production, and the scales to measure the acceptability of metaphor and the acceptability of parallel relations. The last section which is on data analysis explains the methods and techniques used to analyze the data.

3.1. Research Design

This study aims to compare and contrast the metaphor acceptability, interpretation, and metaphor production of college students from various cultural backgrounds. The comparison of metaphor acceptability and acceptability of parallel relations were measured through two scales while metaphor production was measured via a survey test in a semi-structured interview. The interview was semi-structured as the researcher only explained any words that participants had trouble understanding or asked the participants to explain what they meant when not understood rather than asking more questions than what was scheduled (Dursun, 2023; Patten & Mildred, 2018).

The current study has a descriptive and correlational design. It is descriptive as it aims to explore if there are any effects of several predetermined factors on participants' ratings of acceptability of metaphors and aims to describe the relationships among factors. Moreover, the present study intends to reveal any relationship between the participants' ratings of acceptability of metaphor and the ratings of acceptability of two parallel relations which demonstrates the traits of correlational research since it looks for a relationship between two variables.

Using a mixed methodology, the study collects and examines data from both quantitative (closed-ended) and qualitative (open-ended) sources (Creswell, 2015). It follows an analytical approach since it aims to examine the data as a whole after analyzing each separately which focuses on the role of the constituent parts that make up the whole (Selinger & Shohamy, 1989). The study's goal is deductive as the scope of the study is limited with the research questions.

3.2.Participants

The participants are 40 bachelor students who study their departments in English at a private university in Ankara, Türkiye. It is assumed that the participants' English proficiency is intermediate or upper intermediate as they either completed the preparatory school at their school with an intermediate or upper intermediate proficiency level before beginning their departmental studies, or they obtained an upper intermediate score on an international language exam like TOEFL. Students who grew up in one of the countries Iran, Nigeria, Syria and Türkiye were chosen for the study as they were more in number in the chosen school. They were invited to the study considering their nationalities. 10 students of each nationality participated in the study. Detailed information regarding their

nationality, age, gender, first language, status of living abroad, years of studying and speaking English, and daily exposure to English is presented in Table 1.

As summarised in Table 1, 40 students participated in the study. Participants' ages are categorised between 18-22. The age group 22 represents the participants who are aged 22 or over 22. The age group with the highest number of participants is 20 ($n=12$) and accounts for 30% of the participation. Followed by 19 and 22 and over age groups ($n=10$), with a rate of 25 % while only 2 participants (5%) who are aged 21 participated in the study. Even though not specifically planned so, the number of participants from each gender is even ($n=20$). With regards to the participants' first language, all of the Nigerian participants speak Nigerian English (StdE) as their first language while some others speak different African dialects such as Yoruba, and Hausa as their mother tongue. All the Turkish participants speak Turkish, Iranians speak Persian and Syrians speak Arabic as their first language. However, all the Nigerian participants who speak a dialect as their mother tongue, speak English as their first language. Therefore, instead of their mother tongue, the Nigerian participants' first language is analyzed in the current study. The number of speakers of each first language is even ($n=10$). All the participants except the Turkish ones have lived abroad before their participation in the study, indicating that the Turkish participants have never had a chance to speak English in foreign contexts. Most of the participants ($n=13$) had studied English for 15 years before participating in the study while 2 participants had studied it only for 1 year. The duration of English speaking varied among participants, with 40% ($n=16$) having spoken English for 5 years at the time of data collection, while only 2 participants had spoken it for more than 20 years (shown as 21 in the table). All the participants were somehow exposed to English daily. 52% of the participants were *always*, 32% of them were *often* while the 15 % were *sometimes*.

Table 1*Background information about the participants*

Characteristics	n	%
Age		
18	6	15
19	10	25
20	12	30
21	2	5
22+	10	25
Gender		
Female	20	50
Male	20	50
Nationality		
Iranian	10	25
Nigerian	10	25
Syrian	10	25
Turkish	10	25
First language		
Standard Nigerian	10	25
English		
Arabic	10	25
Persian	10	25
Turkish	10	25
Living abroad		
Yes	30	75
No	10	25
Years of studying		
English		
1	2	5
5	7	17.5
10	12	30
15	13	32.5
20	6	15

Years of speaking English			
	1	3	7.5
	5	16	40
	10	8	20
	15	6	15
	20	5	12.5
	21+	2	5
Daily exposure			
	Always	21	52.5
	Often	13	32.5
	Sometimes	6	15

3.3.Data Collection Tools

In the study, four tools were used to obtain data regarding demographic and educational background information, metaphor production, acceptability of metaphorical statements, and acceptability of parallel relations. The tools were gained from Eskandari and Khoshsima's study (2021). The background questionnaire was used to collect participants' demographic and linguistic background (See Appendix B). The Test of Parallel Relations Production (TPRP) (See Appendix C) was used to collect data on metaphor production. The Metaphoric Statement Scale (MSS) (See Appendix D) and The Acceptability of Two Parallel Relations Scale (ATPRS) (See Appendix E), two interrelated measures that are related to the TPRP, were used to gather data on metaphorical mapping, aptness and two parallel relations acceptance.

3.3.1. Background Questionnaire

To collect information on demographics and educational background, the researcher designed a questionnaire of eight questions. Participants' nationality, gender, age, and first

language were questioned to collect demographic data. In the part of the questionnaire related to educational background, participants were asked to provide information about their status of living abroad, the years of studying and speaking English along with daily exposure to English.

3.3.2. *The Test of Parallel Relations Production (TPRP)*

The TPRS is a test that includes seven items of relations from various fields such as emotions, society, etc. For instance, one item of the tool is "The relationship between bribery and society is similar to the relationship between _____ and _____". Each item in the test asks the participants to come up with another relation that feels or means the same as the one that is given. This tool was used in the semi-structured interview. When it was not clear why and how the participants compared the relationships they produced to the relationships in the test, the researcher had them explain it with the questions "Why do you think so? " and "Which domain is similar to which one in the relationships?". The questions were asked to gain more insight into participants' preference of features related to the domains. Later, it could help with the analysis of themes. TPRP was first developed with 15 items under the name 'Test 1' in Eskandari and Khoshsiman's study (2021) 'A study of cross-cultural variations of metaphor aptness and their implications in foreign language teaching (2021)'. It will be called 'Test of Parallel Relationships Production (TPRP)' in the current study since it is more descriptive. The inter-rater reliability of the test was analyzed by Eskandari et al. (2021). The reliability was found to be 0.85 by them after conducting Eskandari and Khoshsiman's pilot study (2021) but the validity was not tested. The researchers used the test to detect the missing data in her study, however, in the current study, this tool was used to make a thematic analysis of the relations that were produced by participants with the aim of

revealing any context differences of relations among groups of participants as conceptual metaphor offers a structure for lexical arrangement, a specific metaphorical conceptual basis or theme may be a signal understanding of concepts. So, there was no missing data in the current study since the answers were gathered in the interview sessions.

2.3.4. The Metaphoric Statement Scale (MSS)

In this scale, one of the domains in each relation in the items of TPRP were used. In this tool, metaphorical statements are given in contextual sentences and the metaphor is directly given in brackets. For example, one item of the scale is "The disease of bribery is so widespread in this country and it is difficult to get rid of it (bribery is a disease)". The participants are asked to judge the acceptability of these relations on a scale ranging from 1 (*unacceptable*) to 4 (*completely acceptable*). MSS was originally designed by Eskandari and Khoshshima (2021) as well. The inter-reliability of the tool was found perfect by Eskandari et. al (2021). Some SPSS analyses were applied by the current study's researcher to measure the validity and reliability of the tool. The Cronbach Alpha value for the scale was found to be .769. The KMO and Barlett's Test value was found to be .737. Factor Analysis-Extraction Sums of Squared Loadings value was found to be 57.324.

2.3.4. The Acceptability of Two Parallel Relations Scale (ATPRS)

In this scale, the metaphor in the items of MSS and other metaphors which constitute relations match were used to test if there is a significant relationship between participants' ratings of the items in MSS and in ATPRS. This tool uses metaphors to represent relations by comparing them to other relations. For example, one item of the scale is "The relationship between bribery and society is similar to the relationship between disease

and human". The participants are asked to judge the acceptability of relatedness of these relations on a scale ranging from 1 (*unacceptable*) to 4 (*completely acceptable*). MSS was initially designed by Eskandari et al. (2021) as well. The inter-reliability of the tool was found perfect by Eskandari et al. (2021). Some SPSS analyses were also conducted by the current study's researcher to measure the validity and the reliability of this tool. The Cronbach Alpha value for the scale was found to be .732. The KMO and Barlett's Test value was found to be .707. Factor Analysis-Extraction Sums of Squared Loadings value was found to be 56.332.

3.4. Data Collection Procedure

After obtaining the Ethical committee's approval (see Appendix F) from Istanbul Medeniyet University, Faculty of Educational Sciences Ethical Committee, participants were invited to the study. Individual online meetings with participants were scheduled according to their schedules. All the tools were shared via Google Forms. The participants signed the consent form (see Appendix A) before participation. The data collection was between the dates March 2023 and July 2023. All the data were collected through online interviews as the aim was to avoid missing data and make the instructions clear for all of the participants or ask for clarification of the answers that were not clear. Meetings lasted approximately 40 minutes. The participants went on with the next sections after the interview for the TPRP was done. In the next sections, they rated the items in MSS and ATPRS respectively.

3.5. Data Analysis

The quantitative data gathered through data collection tools were transferred to SPSS software to implement statistical tests for the analysis since "The Statistical Package for

Social Sciences" (IBM SPSS Statistics 23.0 software) was used both for reliability and validity check and data analysis. To choose the best data analysis techniques, the data were first examined for normal distribution. The values for skewness and kurtosis of each item in MSS and ATPRS were calculated, and they were found to be within the range of -1.5 and +1.5 indicating that the data showed normal distribution and was available for parametric testing (George & Mallery, 2010; Tabachnick & Fidell, 2013). However, since the number of participants from each nationality group was below 30, nonparametric tests were preferred to apply for reliability. Following the normality analysis, the participants were described statistically through descriptive statistics. Next, the Cronbach Alpha and factor analyses of the scales were calculated to check the reliability and validity of the scales. After these analyses, 8 items were excluded from all of the tools since they all included the same metaphors or domains, and an acceptable range of values of reliability and validity of the scales were gained. Later, the quantitative data collected were analyzed through Kruskal Wallis H, multiple regression, and Spearman correlation. Initially, the mean of metaphor acceptability of participants from each nationality and with each first language were compared to see if there was a significant difference regarding the participants' cultural and linguistic backgrounds. Kruskal Wallis H was applied to determine any significant differences in MMS frequencies regarding the factors of nationality and first language. Following the Kruskal Wallis H analysis, the post hoc test Tamhane was applied to detect which group's ratings caused the significant difference. Regarding the impact of the variables age, gender, the years of studying and speaking English, and the level of daily exposure to English, multiple regression analysis was performed. The last quantitative analysis was Spearman Correlation Analysis to check if there was a significant correlation between the items of scales MSS and ATPRS. The

correlation between each item numbered the same in both scales was tested respectively because they included the same domains. As for the qualitative analysis, thematic analysis was employed. When performing qualitative data analysis, the researcher took the role of the analysis tool, making decisions on theming and coding (Starks & Trinidad, 2007). To enhance the credibility of the researcher's analysis, a peer researcher's debriefing was provided as suggested in Lincoln and Guba's study (1989). The data which were gathered through TPRP were first categorized into groups regarding the participants' nationalities and later were categorized into themes to analyze whether there were any differences.

4. FINDINGS

This section presents the results of the analysis of the data obtained in the study, and it is concerned with the research questions. First, the results related to the effect of nationality on metaphor acceptability are provided. Then, the analysis results of variables as predictors of metaphor acceptability are given. Later, the values of correlation between participants' metaphor acceptability and parallel relationship acceptability are presented. Finally, the categorization of metaphors produced is given.

4.1. RQ1: Does metaphor aptness vary regarding cultural and linguistic background?

Nationality in the study represents the countries in which the participants were raised when they were children and gained their first language. The participants from each nationality group speak the same first language. The findings for the first research question are interpreted based on the relationship between nationality and language and their relationship with the metaphor acceptability.

The reason why nationality, the country the participants lived in or are still living in, is used has a connection to the idea that the country in which someone is raised can tell a lot about their culture. Kramsch (1990) states that a community's language serves as a symbol of who they are. The label 'national' to culture is used to distinguish the character of a society from other forms of culture here. A nation's language, customs, traditions, values, and beliefs are all part of its culture as Wilson describes in the diagram of determinants of a national culture system in his research (2015), which was adapted by Hill's study (1997). On the other hand, loss of the language of a country means the loss of culture and identity since it is a tool for the culture to continue, or a reflection of the culture through mostly figurative language. As Kövecses (2003) states the metaphor and its linguistic expression vary from culture to culture in parallel with the cultural changes.

To gain a general framework of ratings from each nationality group, descriptive data were examined. The means of each item were compared with respect to the participants' nationality. The analysis revealed that at least 1 participant from each group rated the relationship both with 1 and 4 only for the 1st item "The disease of bribery is so widespread in this country, and it is difficult to get rid of it (bribery is a disease)". Although participants from all of the other groups rated the second item "The lightning was a huge sharp axe that made the large tree into two halves (lightning was an axe)" with 2 lowest, there was at least 1 Iranian participant who rated the relationship with 1. At least 1 Syrian participant rated the third item "Music was a tranquilizer for him and helped him to overcome his pains (music is medicine)" with 1. At least 1 Iranian participant rated the fourth item "Music was a tranquilizer for him and helped him to overcome his pains (music is medicine)" with 1. The lowest rating for the fifth item "Her discipline was a fertilizer that helped him to grow (discipline is a fertilizer) " was by the group of Syrians

(1: unacceptable). However, the minimum rate for the same item by Iranians and Nigerians was 3 (acceptable). The minimum value for the sixth item "When John is angry, he is an eruptive volcano (anger is eruption)" was 1 by all of the groups except for the group of Iranians. The seventh item "Memory is a huge storage that can save a lot of information for a potentially long time (memory is a reservoir)" was rated with 1 by the Turkish and Iranian participants and 2 by the Nigerians and Syrians as lowest.

The mean of participants' ratings for each item varied, however the difference was minor sometimes. The mean of ratings by all the groups for the first item was found to be 3.22, however it was rated the lowest ($\bar{x} = 2.70$) by the Turkish participants. The mean of all of the groups' ratings was found to be 2.95 for the second item. The Syrian and Turkish participants rated it lower ($\bar{x} = 2.60$) than the total mean while the Iranians and Nigerians did higher than the total mean (3.30). The mean of ratings by all the groups for the third item was found to be 3.40. The Syrian participants were the ones that rated it the lowest ($\bar{x} = 3.00$). Item 4 was the one rated the highest overall. The mean of all the groups was found to be 3.42. It was rated highest by the Nigerian participants ($\bar{x} = 3.70$) while it was lowest by the Iranian and Syrian participants ($\bar{x} = 3.20$). The total average of the ratings for the 5th item was found to be 3.35. It was rated highest by the Nigerian participants ($\bar{x} = 3.80$) while it was lowest by the Syrian participants ($\bar{x} = 2.90$). The sixth item was rated 3.30 on average. It was rated highest by the Iranian participants ($\bar{x} = 3.60$) while it was rated lowest ($\bar{x} = 3.10$) by the Syrian participants. The mean of the seventh item was found to be 3.37. It was rated the highest ($\bar{x} = 3.60$) by the Nigerian participants while it was lowest ($\bar{x} = 3.20$) by the Iranian participants.

Table 2*Decriptives*

Items	Nat.	M	SD	SE	95%		MIN	MAX
					Lower	Upper		
MSS - I1	Iranian	3.30	.94	.30	2.62	3.97	1.0	4.0
	Nigerian	3.60	.96	.30	2.90	4.29	1.0	4.0
	Syrian	3.30	1.25	.39	2.40	4.19	1.0	4.0
	Turkish	2.70	1.41	.44	1.68	3.71	1.0	4.0
	Total	3.22	1.16	.18	2.85	3.59	1.0	4.0
MSS-I2	Iranian	3.30	.67	.21	2.81	3.78	2.0	4.0
	Nigerian	3.30	1.05	.33	2.54	4.05	1.0	4.0
	Syrian	2.60	.96	.30	1.90	3.29	1.0	4.0
	Turkish	2.60	1.07	.33	1.83	3.36	1.0	4.0
	Total	2.95	.98	.15	2.63	3.26	1.0	4.0
MSS-I3	Iranian	3.30	.82	.26	2.71	3.88	2.0	4.0
	Nigerian	3.70	.67	.21	3.21	4.18	2.0	4.0
	Syrian	3.00	1.15	.36	2.17	3.82	1.0	4.0
	Turkish	3.60	.69	.22	3.10	4.10	2.0	4.0
	Total	3.40	.87	.13	3.12	3.67	1.0	4.0
MSS-I4	Iranian	3.20	.91	.25	2.54	3.85	1.0	4.0
	Nigerian	3.70	.67	.21	3.21	4.18	2.0	4.0
	Syrian	3.20	.78	.26	2.63	3.76	2.0	4.0
	Turkish	3.60	.69	.21	3.10	4.10	2.0	4.0
	Total	3.42	.78	.17	3.17	3.67	1.0	4.0
MSS-I5	Iranian	3.70	.48	.15	3.35	4.04	3.0	4.0
	Nigerian	3.80	.42	.13	3.49	4.10	3.0	4.0
	Syrian	2.90	1.19	.37	2.04	3.75	1.0	4.0
	Turkish	3.00	.66	.21	2.52	3.47	2.0	4.0
	Total	3.35	.83	.13	3.08	3.61	1.0	4.0
MSS-I6	Iranian	3.60	.69	.22	3.10	4.10	2.0	4.0
	Nigerian	3.30	1.15	.36	2.47	4.12	1.0	4.0
	Syrian	3.10	.99	.31	2.38	3.81	1.0	4.0
	Turkish	3.20	1.03	.32	2.46	3.93	1.0	4.0

	Total	3.30	.96	.15	2.99	3.60	1.0	4.0
MSS-I7	Iranian	3.20	1.03	.32	2.46	3.93	1.0	4.0
	Nigerian	3.60	.69	.22	3.10	4.10	2.0	4.0
	Syrian	3.30	.82	.26	2.71	3.88	2.0	4.0
	Turkish	3.40	1.07	.33	2.63	4.16	1.0	4.0
	Total	3.37	.89	.14	3.08	3.66	1.0	4.0

To compare participants' metaphor acceptability means among groups of nationality and ascertain whether there is a significant difference in this nonparametric analysis, Kruskal Wallis H test was preferred. The analysis revealed a significant difference between the ratings of the 5th metaphor regarding the participants' nationality ($p < .05$).

Table 3

Kruskal Wallis H results for the nationality effect on acceptability of MSS items

	MSS- I1	MSS- I2	MSS- I3	MSS- I4	MSS- I5	MSS- I6	MSS- I7
Chi-Square	2.75	5.35	3.36	4.29	9.80	1.88	1.32
df	3	3	3	3	3	3	3
Asymp.Sig.	.43	.14	.33	.23	.02	.59	.72

The post hoc test Tamhane was applied to identify which groups caused this difference. The analysis revealed that the difference was between the Nigerian and Turkish participants ($p < .05$) (Table 4). This also meant speakers of Turkish and Nigerian Standard English as their first language rated the acceptability of the metaphor differently.

Table 4

Tamhane post hoc analysis for the 5th item "Her discipline was a fertilizer that helped him to grow (discipline is a fertilizer)"

(I) Nationality	(J) Nationality	Mean Difference (I-J)	Std.Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Iranian	Turkish	.70	.26	.09	-.70	1.47
	Syrian	.80	.40	.36	-.48	2.08
	Nigerian	-.10	.20	.99	-.70	.50
Nigerian	Turkish	.80*	.24	.03	.04	1.55
	Iranian	.10	.20	.99	-.50	.70
	Syrian	.90	.40	.24	-.37	2.17
Syrian	Turkish	-.10	.43	1.00	-1.42	1.12
	Iranian	-.80	.40	.36	-2.08	.48
	Nigerian	-.90	.40	.24	-2.17	.37
Turkish	Iranian	-.70	.26	.09	-1.47	.07
	Syrian	.10	.43	1.00	-1.22	1.42
	Nigerian	-.80*	.24	.034	-1.55	-.04

*. The mean difference is significant at the 0.05 level.

4.2. RQ2: Is English speakers' metaphor acceptability predicted by their linguistic and demographic backgrounds?

Regression analysis for the 1st metaphor in MSS revealed that the variables predicted the participants' statement by 22% ($r^2 = .22$) (Table 5). For further explanation, ANOVA results (Table 6) were checked and it indicated no significant effect of all those variables on their metaphor acceptability ($p > 0.05$). However, coefficient values of variables (Table 7) revealed that participants' daily exposure to English was found to be the only

variable that predicted the participants' acceptability of the first metaphor in MSS ($p = .04$).

Regression analysis for the 2nd metaphor in MSS revealed that the variables predicted the participants' statement by 24% ($r^2 = .24$) (Table 5). For further explanation, ANOVA results (Table 6) were checked and it indicated no significant effect of all those variables on their metaphor acceptability ($p > .05$). However, coefficient values of variables (Table 7) revealed that participants' daily exposure to English was found to be the only variable that predicted the participants' acceptability of the second metaphor in MSS ($p = .02$).

Regression analysis for the 3rd metaphor in MSS revealed that the variables predicted the participants' statement by 24% ($r^2 = .24$) (Table 5). To provide more context, the ANOVA findings (Table 6) were examined; they showed that none of the variables had a significant impact on the acceptability of the metaphor ($p > .05$). When the coefficient values were examined it was revealed that participants' age predicted ($p = .05$) participants' acceptability of the third metaphor. (Table 7).

Regression analysis for the 4th metaphor in MSS revealed that the variables predicted the participants' statement by 20% ($r^2 = .20$) (Table 5). For further explanation, ANOVA results (Table 6) were checked and it indicated no significant effect of all those variables on their metaphor acceptability ($p > .05$). However, coefficient values of variables (Table 7) revealed that participants' duration of speaking English ($p = .02$) and experience of living abroad ($p = .05$) were found to be the variables that predicted the participants' acceptability of the fourth metaphor in MSS ($p = .02$).

Regression analysis for the 5th metaphor in MSS revealed that the variables predicted the participants' statement by 23% ($r^2 = .23$) (Table 5). For further explanation, ANOVA

results (Table 6) were checked and it indicated no significant effect of all those variables on their metaphor acceptability ($p > .05$). However, coefficient values of variables (Table 7) revealed that participants' level of daily exposure was found to be the only variable that predicted the participants' acceptability of the 5th metaphor in MSS ($p = .02$).

Regression analysis for the 6th metaphor in MSS revealed that the variables predicted the participants' statement by 11% ($r^2 = .115$) (Table 5). For further explanation, ANOVA results (Table 6) were checked and it indicated no significant effect of all those variables on their metaphor acceptability ($p > .05$). No significant effect of any variables was found when the coefficient values were checked either.

Regression analysis for the 7th metaphor in MSS revealed that the variables predicted the participants' statement by 22% ($r^2 = .22$) (Table 5). For further explanation, ANOVA results (Table 6) were checked and it indicated no significant effect of all those variables on their metaphor acceptability ($p > .05$). However, coefficient values of variables (Table 7) revealed that participants' level of daily exposure was found to be the only variable that affected the participants' acceptability of the 7th metaphor in MSS, and the effect of the variable was found to be higher when compared to its effect on the other items ($p = .00$).

Table 5

Regression results for the predetermined variables predicting the acceptability of the MSS items

Items	R	R Square	Adjusted R Square	Std. Error of the Estimate
MSS- I1	.47 ^a	.22	.08	1.11
MSS- I2	.49 ^a	.24	.10	.93

MSS- I3	.49 ^a	.24	.10	.82
MSS- I4	.45 ^a	.20	.05	.75
MSS- I5	.48 ^a	.23	.09	.79
MSS- I6	.34 ^a	.11	-.04	.98
MSS- I7	.47 ^a	.22	.08	.85

a. Predictors: (Constant), Daily Exposure, Living Abroad, Age, Years of Studying, Gender, Years of Speaking

Table 6

ANOVAa showing overall significance of the regresion results

		Sum of Squares	df	Mean Square	F	Sig.
MSS- I1	Regression	11.98	6	1.99	1.60	
	Residual	40.98	33	1.24		.17 ^b
	Total	52.97	39			
MSS- I2	Regression	9.29	6	1.54	1.78	
	Residual	28.60	33	.86		.13 ^b
	Total	37.90	39			
MSS- I3	Regression	7.28	6	1.21	1.79	
	Residual	22.31	33	.67		.13 ^b
	Total	29.60	39			
MSS- I4	Regression	4.82	6	.80	1.39	
	Residual	18.95	33	.57		.24 ^b
	Total	23.77	39			
MSS- I5	Regression	6.34	6	1.05	1.68	
	Residual	20.75	33	.62		.15 ^b
	Total	27.10	39			
MSS- I6	Regression	4.19	6	.70	.71	
	Residual	32.20	33	.97		.63 ^b
	Total	36.40	39			
MSS- I7	Regression	7.19	6	1.20	1.63	

Residual	24.17	33	.73	.16 ^b
Total	31.37	39		

b. Predictors: (Constant), Daily Exposure, Living Abroad, Age, Years of Studying, Gender, Years of Speaking

Table 7

Coefficient values for all the MSS items

Items	Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
MSS- I1	(Constant)	2.36	1.13		2.08	.04
	Age	-.11	.14	-.13	-.78	.43
	Gender	.43	.38	.18	1.13	.26
	Years of studying	-.04	.05	-.18	-.69	.49
	Years of speaking	.07	.05	.40	1.33	.19
	Living Abroad	-.47	.48	-.17	-.98	.33
	Daily Exposure	.53	.26	.34	2.05	.04
MSS- I2	(Constant)	1.63	.94		1.73	.09
	Age	.01	.11	.02	.15	.88
	Gender	.58	.31	.30	1.84	.07
	Years of studying	-.04	.04	-.24	-.90	.37
	Years of speaking	.05	.04	.33	1.12	.27
	Living sbroad	-.35	.40	-.15	-.88	.38
	Daily exposure	.50	.21	.38	2.34	.02
MSS- I3	(Constant)	2.29	.83		2.74	.01
	Age	-.21	.10	-.33	-2.02	.05
	Gender	.28	.28	.16	.99	.32
	Years of studying	.00	.04	.05	.19	.84
	Years of speaking	.03	.04	.22	.73	.46
	Living abroad	.32	.35	.16	.91	.36

	Daily exposure	.31	.19	.26	1.61	.11
	(Constant)	3.08	.77		4.01	.00
	Age	-.11	.09	-.20	-1.18	.24
	Gender	-.19	.25	-.12	-.75	.45
MSS- I4	Years of studying	-.05	.04	-.37	-1.37	.17
	Years of speaking	.09	.03	.72	2.34	.02
	Living abroad	.65	.32	.36	2.00	.05
	Daily exposure	-.05	.17	-.05	-.32	.74
	(Constant)	2.55	.80		3.17	.00
	Age	-.02	.10	-.04	-.28	.77
	Gender	.21	.27	.13	.78	.43
MSS- I5	Years of studying	.02	.04	.15	.56	.57
	Years of speaking	.01	.04	.07	.24	.80
	Living abroad	-.43	.34	-.22	-1.26	.21
	Daily exposure	.44	.18	.39	2.39	.02
	(Constant)	2.04	1.00		2.04	.04
	Age	.15	.12	.22	1.24	.22
	Gender	.16	.33	.08	.50	.61
MSS- I6	Years of studying	.00	.05	.03	.11	.90
	Years of speaking	.00	.05	.03	.10	.91
	Living abroad	-.07	.42	-.03	-.18	.85
	Daily exposure	.30	.23	.23	1.33	.19
	(Constant)	1.97	.86		2.27	.02
	Age	-.11	.10	-.17	-1.03	.30
	Gender	.04	.29	.02	.15	.87
MSS- I7	Years of studying	-.02	.04	-.17	-.63	.53
	Years of speaking	.07	.04	.50	1.65	.10
	Living abroad	.31	.37	.15	.84	.40
	Daily exposure	.55	.20	.45	2.77	.00

4.3. RQ3: Is there a relationship between the degree of metaphor acceptability and the degree of acceptability of parallel relationships?

The correlation analysis revealed that there was a positive correlation between each item numbered the same of the both scales except the 6th item (Table 8). This means, as the metaphoric statements in MSS were rated higher, the parallel relationships were rated higher in ATPRS. On the other hand, participants ratings of the 6th item didn't correlate positively ($r = -.089$), which means as metaphoric statement in MSS was rated higher, the first parallel relationship was rated lower in ATPRS or vice versa, but this wasn't a significant negative correlation ($p > .05$). Positive correlations between the 4th items, 5th items and 7th items in both scales were not found to be significant either. However, positive correlations between the 1st, 2nd and 3rd items were found to be both positive and significant ($p > .05$).

Table 8

Correlation between the items of MSS and ATPRS

ATPRS I1			
MSS I1	N	Correlation Coefficient	Sig. (2-tailed)
	.40	.311	.05
ATPRS I2			
MSS I2	N	Correlation Coefficient	Sig. (2-tailed)
	40	.302	.05
ATPRS I3			
MSS I3	N	Correlation Coefficient	Sig. (2-tailed)
	40	.890	.02
ATPRS I4			
MSS I4	N	Correlation Coefficient	Sig. (2-tailed)
	40	.311	.05

	N	Correlation Coefficient	Sig. (2-tailed)
	40	.007	.96
ATPRS I5			
MSS I5	N	Correlation Coefficient	Sig. (2-tailed)
	40	.080	.62
ATPRS I6			
MSS I6	N	Correlation Coefficient	Sig. (2-tailed)
	40	-.089	.58
ATPRS I7			
MSS I7	N	Correlation Coefficient	Sig. (2-tailed)
	40	.169	.29

*.Correlation is significant at the 0.05 level (2-tailed).

4.4. RQ4: Can metaphors produced by people from different cultural backgrounds be thematically categorised?

Themes of parallel relationships produced to match the first relationship "bribery and society" varied as all the others (Table 9). Most repetitive themes were academia (8) and social issues (7). One example of the theme of academia was "cheating and a student" as it harms a student's essence as bribery does to a society. Among those who produced relationships on the theme "Academia", the majority were Iranian (4) and Turkish participants (3) (Table 10). Among those who produced relationships on the theme "Social Issues", the majority were Syrian (4) and Nigerian participants (3) (Table 10).

Most repetitive themes produced to match the second relationship "lightning and tree" were food and culinary (10) and relationships and emotions (9). One example of the theme "food and culinary" was "knife and tomatoes" since a knife divides a tomato into two pieces as lightning does a tree. Among those who produced relationships on the theme "relationships and emotions", the majority were Iranian (4) and Turkish participants (3)

(Table 10). Among those who produced relationships on the theme "social issues", the majority were Syrian (4) and Nigerian participants (3) (Table 10).

The two most frequent themes of parallel relationships produced to match the third relationship "music and human" had the same number of participants (Table 9). These themes were animals, along with philosophical and spiritual. While one example of the theme "animals" was "a ball and a dog" because a ball amuses a dog in the same way music does a human being. While it was "sea view and soul" on the theme "philosophical and spiritual" because sea view relaxes the soul as music calms down a human being. Among those who produced relationships on the theme "animals", the majority were the Nigerians (3) (Table 10). The number of the participants from each nationality was equal (2) among those who produced relationships on the theme "philosophical and spiritual".

The number of participants who produced relationships matching the fourth relationship "rooster and rooster song" was the highest on the theme "technology" with 13 participants (Table 9). The most repetitive relationship on this theme produced by the participants was technology. Among those who produced relationships on the theme, the majority consisted of the Turkish participants (5) (Table 10).

Two most frequent themes produced for the fifth relationship "discipline and progress" were education (10) and personal development (9) (Table 9). One example of the relationships produced on the theme "education" was "studying and learning" since learning comes as a result of studying as discipline leads to progress. One example of the relationships produced on the theme "personal development" was "belief and success" because believing oneself results in success as being disciplined results in progress. Most

of the participants who produced the relationships on this theme were the Iranians (5) followed by the Syrians (4) (Table 10).

The theme of metaphors mostly produced to match the sixth relationship's theme "human and anger" was nature and elements with 10 participants (Table 9). One example of the relationships produced on this theme was "petrol and fire" since petrol causes fire which is harmful as a human produces anger and anger is something also harmful. The number of relationships produced from participants from each nationality was almost the same, however, the Nigerians were more (4) (Table 10).

Digital Data was found to be the most frequent theme of relationships produced to match the relationship "memory and past events" with 11 participants (Table 10). One example of the relationships produced on this theme was "hard drive and documents" since documents are stored in a hard drive and past events are stored in memory. Most of the participants who produced the relationships on this theme were the Nigerians (4) (Table 10).

Table 9

Themes produced in TPRP

Source relationship	Themes	Total number of relationships produced
bribery and society	Academia	8
	Social Issues	7
	Ethical and moral dilemmas	6
	Family	4
	Health and well-being	4
	Environmental concerns	3

	Relationships	2
	Nature	2
	Workplace and dynamics	2
	Art	1
	Ecosystem	1
lightning and tree	Food and culinary	10
	Relationships and emotions	9
	Health and well-being	7
	Accidents	3
	Design	3
	Social and political issues	3
	Natural disasters and impact	2
	Work and life balance	2
	Medicine	1
music and human	Animals	8
	Philosophical and spiritual concepts	8
	Chemistry and biology	7
	Personal development and well-being	5
	Leisure and lifestyle	4
	Nature	4
	Human interactions and relationships	2
	Art	1
	Sports	1
rooster and	Technology	13
rooster song	Animals	6
	Human sounds	5
	Work	5
	Family	3
	Nature	3
	Transport	3
	Instrument	1
	Literature	1
discipline and	Education	10
progress	Personal development	9
	Physical health and fitness	5

	Norms	4
	Relationships	3
	Career	2
	Analysis	1
	Art	1
	Craftsman	1
	Kitchen	1
	Leisure	1
	Military	1
	Unhealthy habits	1
human and anger	Nature and elements	10
	Animals	7
	Health and medicine	6
	Emotions	5
	Environmental impact	3
	Relationships	3
	Fragility of life	2
	War	2
	Spiritual	1
	Technology	1
memory and past events	Digital data	11
	Construction	4
	Experience	4
	Health and wellness	4
	Art	2
	Cognition	2
	Connections and interactions	2
	Economy and finance	2
	Entertainment	2
	Future	2
	Ecosystem	1
	Fashion	1
	Kitchen	1
	Stationary	1
	Work	1

Table 10*Participants who produced the themes matching the relationships given*

Source relationship	Themes	Participants
bribery and society	Academia	I(1), I(5), I(8), I(10), S(10), T(6), T(8), T(9)
	Social Issues	S(1), S(5), S(8), S(9), N(3), N(4), N(5)
	Ethical and moral dilemmas	I(6), N(10), S(2), S(3), S(4), T(5)
	Family	N(8), S(6), T(1), T(7)
	Health and well-being	I(2), I(7), N(7), N(9)
	Environmental concerns	I(4), I(9), T(10)
	Relationships	N(1), S(7)
	Nature	N(6), T(4)
	Workplace and dynamics	I(3), N(2)
	Art	T(3)
	Ecosystem	T(2)
lightning and tree	Food and culinary	I(2), I(5), N(4), N(6), N(7), N(10), S(2), S(7), S(9), S(10)
	Relationships and emotions	I(1), I(4), I(6), I(9), N(5), S(3), S(5), S(6), T(3)
	Health and well-being	I(3), N(2), T(2), T(5), T(6), T(9), T(10)
	Accidents	I(7), I(8), T(4)
	Design	N(8), N(9), S(8)
	Social and political issues	N(3), S(4), T(1)

music and human	Natural disasters and impact	N(1), T(8)
	Work and life balance	I(10), T(7)
	Medicine	S(1)
	Animals	I(2), N(4), N(8), N(10), S(7), S(9), T(1), T(4)
	Philosophical and spiritual concepts	I(3), I(9), N(2), N(5), S(4), S(8), T(2), T(3)
	Chemistry and biology	I(5), I(6), N(6), S(1), S(3), T(5), T(8)
	Personal development and well-being	I(1), N(1), S(2), T(6), T(7)
	Leisure and lifestyle	N(7), N(9), S(6), T(10)
	Nature	I(4), I(10), N(3), S(5)
	Human interactions and relationships	I(7), I(8)
	Art	T(9)
	Sports	S(10)
rooster and rooster song	Technology	I(6), I(7), I(8), N(2), N(4), N(6), N(9), S(4), T(2), T(4), T(5), T(7), T(8)
	Animals	N(8), N(10), S(2), S(8), S(9), T(1)
	Human sounds	I(3), I(5), N(3), T(3), T(6)
	Work	I(9), I(10), S(1), S(10), T(10)
	Family	I(4), N(7), S(3)
	Nature	N(1), N(5), S(6)
	Transport	I(1), S(7), T(9)
	Instrument	I(2)
	Literature	S(5)

discipline and progress	Education	I(2), I(4), I(5), I(9), I(10), N(2), S(6), S(7), S(9), S(10)
	Personal development	I(1), I(6), N(4), N(5), N(6), N(8), N(10). S(2), T(9)
	Physical health and fitness	N(7), T(2), T(3), T(6), T(7)
	Norms	N(3), N(9), S(4), T(10)
	Relationships	I(8), S(5), S(8)
	Career	I(3), S(4)
	Analysis	S(1)
	Art	T(5)
	Craftsman	N(1)
	Kitchen	T(8)
	Leisure	T(4)
	Military	T(1)
	Unhealthy habits	I(7)
human and anger	Nature and elements	I(2), I(8), I(10), N(1), N(4), N(8), N(9), S(5), T(2), T(8)
	Animals	N(5), N(6), S(7), S(8), S(9), T(1), T(9)
	Health and medicine	I(3), I(7), N(2), N(10), T(6), T(7)
	Emotions	I(1), I(9), S(2), S(3), S(10)
	Environmental impact	S(1), T(4), T(5)
	Relationships	N(1), N(7), S(4)
	Fragility of life	I(4), T(3)
	War	I(6), T(10)
	Spiritual	S(6)
	Technology	I(5)

memory and past events	Digital data	I(2), I(3), I(7), N(5), N(6), N(7), N(9), S(4), S(8), S(10), T(2)
	Construction	I(9), S(7), T(1), T(3)
	Experience	I(1), N(3), N(4), S(2)
	Health and wellness	I(6), I(8), N(10), S(9)
	Art	N(2), T(8)
	Cognition	N(1), T(7)
	Connections and interactions	I(4), S(5)
	Economy and finance	N(8), T(9)
	Entertainment	I(10), T(5)
	Future	S(3), S(6)
	Ecosystem	T(4)
	Fashion	T(10)
	Kitchen	I(5)
	Stationary	T(6)
	Work	S(1)

I: Iranian, N:Nigerian, S:Syrian, T:Turkish

5. CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

This section represents the conclusions of the study and discussion regarding the effects of nationality on the participants' metaphor aptness, relationship between metaphor acceptability and parallel relationship acceptability, and categorization of participants' metaphors. Initially, the conclusions of the study were presented below three headings. Then, the findings of the study were discussed regarding the previous research. Next, recommendations were given to teachers and curriculum and material developers. Lastly, recommendations for further research were provided.

5.1. Conclusions

This subsection consists of three headings to present conclusions gained through the present research. The conclusions were grouped as follows: conclusions regarding metaphor acceptability and variables, conclusions regarding parallel relationships and conclusions regarding metaphor production of the participants.

5.1.1. Conclusions Regarding the Metaphor Acceptability and Effective Variables

Statistical analysis of the MSS did not reveal any statistically significant difference among the metaphor aptness of participants from different cultural backgrounds for all the metaphors except the fifth metaphor "discipline and progress". However, there were important findings to mention. The mean rating of the Turkish participants for the first metaphor "bribery is a disease" was the lowest ($\bar{x} = 2.70$) and it was below the overall acceptability mean ($\bar{x} = 3.22$) of that metaphor. In addition, this metaphor was judged as

the least acceptable one among all the metaphors in the scale ($\bar{x} = 3.22$). The second metaphor was found to be more apt for the Iranians and the Nigerians ($\bar{x} = 3.30$) than the Turkish and Syrian participants ($\bar{x} = 2.60$). The fifth metaphor was judged as more acceptable by the Nigerians and Iranians ($\bar{x} = 3.80$, $\bar{x} = 3.70$ respectively) compared to the Turkish and Syrian participants ($\bar{x} = 3.00$, $\bar{x} = 2.90$ respectively). All the metaphors (except the sixth which was more apt for the Persians than the other participants) were more apt for the Nigerians than the other participants from Iran, Syria and Türkiye. The average of aptness mean of each item was above 3 out of 4. However, item 2 "The lightning was a huge sharp axe that made the large tree into two halves (lightning was an axe)" received the lowest rating.

Regarding the predication of the demographic and educational variables, the effect of each variable on the aptness of each metaphor was analyzed separately. The variables that were effective in participants' acceptability of metaphors were daily exposure to English, years of speaking English, living abroad and age. Daily exposure to English was found as a predictor of the acceptability rating of the first, second, fifth and seventh metaphors. Years of speaking English was found to be an important variable on the acceptability rating of the fourth item. Living abroad was found to be a predictor of acceptability of the fourth item and age was found to be a predictor of the third item.

5.1.2. Conclusions Regarding the Acceptability of Parallel Relationships

There was a positive correlation between the judgements of metaphor acceptability and parallel relationships acceptability in all items (except the 6th one - human and anger). However, results in the research indicated that when easily activated relationships are the base of a metaphor, that metaphor has a high degree of acceptability (except the

6th) and therefore holds a higher degree of aptness, which is consistent with the findings of Eskandari and Khoshshima (2021).

5.1.3. Conclusions Regarding the Metaphor Production

The themes of relationships produced by the participants (in TPRP) included nature in all the relationships and health in all the items except for the 4th item. Most frequent ones usually included concepts which interested target teenager students, such as sports, academia, technology (Turner, 2015). These themes might support the embodiment theory of CMT as it is stated in the theory that people conceptualize abstract or difficult-to-understand ideas with their environmental and natural experiences which is bodily experience. In addition, the foundations in the relationships included common entailments. In the relationships to describe "bribery and society", the focuses were "A harms the essence of B" and "A destructs B". The second relationship "lightning and tree" had the focus points "A separates B", "A destroys B", "A rips B apart". For the third one "music and human", focuses were "A entertains B", "A feeds B", "A enhances the quality of the B" and "A beautifies B". For "rooster and rooster song", they were "A produces B", "A causes B", "A starts B" and "A does B" (occupation). For "discipline and progress" the relationships had the main focus "A enables B". For the sixth "human and anger", they were "A emits B", "A includes B", "A harms B". For the last one, "memory and past events", main focuses were "B enables A" and "A is a material of B". Therefore, these theme focuses seem to be able to be categorised into groups and appear to be addressed most commonly while forming metaphors through parallel relationships. However, even though these features can be categorized regarding theme and focus, they cannot be categorized according to the participants' cultural backgrounds.

5.2. Discussion

This subsection consists of three headings to discuss the conclusions gained through the present research. The discussion was grouped as follows: discussion on metaphor acceptability and variables, discussion on acceptability of parallel relationships and discussion on the metaphor production of the participants.

5.2.1. Discussion on Metaphor Acceptability and Effective Variables

The statistical significant difference for the metaphor "discipline and progress" between the Nigerian and Turkish participants shows that the judgement of the participants from these nationalities statistically varied even though this limited statistical variation cannot be generalized. However, this difference might be because of the fact that Turkish participants were the only group of people who had never been abroad before the data collection time. They might have not been exposed to the concept of either "discipline" or "fertilizer" interculturally. Apart from statistical difference, the overall variation in acceptability ratings for all the metaphors align with the findings of Eskandari and Khoshshima (2021), who states that there is a variation in metaphor aptness of people from different cultural backgrounds, it is possible to differentiate between mean ratings of each group. This difference might be also related to participants' offline or online understanding of the metaphor. The analysis of the predictability of variables on participants' acceptability of the metaphoric statement revealed that their judgements were predicted by their level of daily exposure to English. Four items were rated higher when the participants' exposure to English was higher and one item was rated higher when the years participants have spoken English were more. Offline understanding is an

outcome of a long historical-cultural process. The language as an operator of this process (Mohamed, 2017) might have affected how much participants were apt to understanding the metaphors. Thus, the participants who have been exposed to English more could have understood the metaphor's salient features more globally. The metaphor might have been new to the participants who had less exposure to English and needed more time to comprehend its features in English. Interestingly, all the metaphors (except the sixth which was more apt for the Persians than the other participants) were more apt for the Nigerians than the other participants from Iran, Syria and Türkiye. This finding might be because of their first language (stdE) that they have heard and spoken for a longer time than the other participants. This can be supported with the analysis of variables. The effect of each variable on the aptness of each metaphor was analyzed separately. Both the variable of daily exposure and years of speaking English are related to the frequency of English in daily life. Also, another predictor for the 3rd item, experience of living abroad might have contributed to participants' exposure in daily life. Nigerians as speakers of English as a first language were the ones who rated most of the metaphors more apt than other participants who had other first languages than English. Thus, all these findings related to acceptability rating and variables show that the frequency of hearing the words or metaphors might be affecting metaphor aptness by enabling participants' offline understanding and increasing their cultural awareness as Thibodeaue and Durgin (2011) found that aptness was correlated with frequency. Interestingly, the variable "years of studying English" was not found to be effective in the participants' metaphor acceptability. This might signal a lack of valuing metaphorical competence and a lack of providing cultural context in language classes as various studies stated a lack of

teaching metaphor in language classes (Tsitoura, 2022). None of the other demographic variables affected participants' judgement.

The fact that the metaphor "The lightning was a huge sharp axe that made the large tree into two halves (lightning was an axe)" received the lowest total mean might be explained through the class inclusion model. The ad hoc category "cuts into halves" might not have been salient or not universal as it indirectly signals "a dysfunction in something or death of one" which is probably more salient than the separation of something. Furthermore, this might be because the domains were not well-known by the participant sample. This can be because of the salience imbalance model (Ortony, 1979, as cited in Eskandari & Khoshshima, 2021). Salient features of "lightning" might be more than features of an "axe" since lightning can be observed in all the countries which participants grew up in. Another reason might be that the metaphor "Lightning is an axe" might have been novel for most of the participants. Surprisingly, this item did not receive any rating of *unacceptable* from any of the participants except from the Iranians. This might be because the participants were not completely clear about the semantic features of the words and hesitated to make certain judgements.

5.2.2. Discussion on the Acceptability of Parallel Relationships

Regarding the correlation analysis, there was a negative correlation between the sixth items (MSS 6= anger is eruption, ATPRS 6= The relationship between anger and human is similar to the relationship between eruption and volcano). This might be because of individual differences in comprehension or experience of the concept of "anger" which is a very salient and known concept for all the people. The findings from the metaphor production test support that some of the participants considered anger to be something

devastating while the others perceived it as a natural response, or a reflex, so there was variation in the understanding of "anger" (Ansah, 2010; Soriano, 2003; Su, 2002). However, this variation was regardless of the cultural background. Therefore, the participants who did not consider anger or eruption devastating might have rated the parallel relationship item low in ATPRS, and this might have caused a negative correlation, or the participants who did not consider "anger" as something devastating or harmful might have had less mappings in their minds and it reduced their acceptability of the parallel relationship given in the scale. Furthermore, anger is an abstract concept and it might have caused the variation on the comprehension and aptness as individuals might have their own tangible correspondences to abstract ideas to comprehend them better as stated in CMT. Nevertheless, the structural mapping theory's central claim is supported by the general positive correlation between metaphor's acceptability rating's of six items and its corresponding parallel relationship. Rather than focusing on the elements themselves, the structure-mapping approach highlights the critical importance that relationships between elements in the base and target domains hold. Therefore, aside from metaphor acceptability means, the correlation between these scales also prove aptness of the metaphors as the relationships in ATPRS and the ones in MSS were matched through mappings of salient features in the same domains (target to target) even though it doesn't reveal any differences regarding the participants' cultural backgrounds. Different relations might have been activated in the participants' minds, which were related to the main relations given in ATPRS items. Nonetheless, it proves that the relations in highly rated and positively correlated items 1, 3, 4, 5, 7 which were given in ATPRS were salient since it is the base to the relationships produced and their acceptability is in line with metaphorical statements. However, this does not prove that it was the primary pair of

parallel relations. For instance, the metaphor "music is medicine" had the second highest acceptability in MSS and its acceptability rate in ATPRS correlates with it in a statistically important way. However, music in the relationship between "music and human" was not comprehended only as "something healing" but also as "something that enhances".

In addition, the mappings between the target domains might have been supported by the context in MSS. The participants were presented with conceptual metaphors in actual sentences which included the same salient feature of the domain as in the ATPRS. Therefore, this might have contributed the participants' possibility of accepting the parallel relationship matches (Bambini, 2016; Boroditsky, 2001; Thibodeau & Durgin, 2011; Zadeh et al., 2019). Correlations of some items (bribery and disease, lightning and axe, music and medicine) were found to be statistically significant, showing that there were more mappings between the relationships highly accepted in MSS and ATPRS according to structural theory. The total mean of acceptability of the metaphor "lightning is an axe" was found to be the lowest while it was found to be the highest for the metaphor "music is medicine". Thus, acceptability of the match of relations correlates with aptness for items 1 and 3. It shows that if a metaphor is apt, it is most likely to accept a relationship including the apt metaphor due to the match of available mappings in the participants' mind with the mapping in the relations given. If the metaphor is not apt, it is least likely to match it with another relation since the features in the metaphor are not mapped more (Lightning is an axe). It is because one salient feature of the metaphors were given in the MSS and the same salient feature was included in the relations of the ATPRS. More mappings might be supported by the structural mapping theory as Murphy stated (1996). Through structural alignment and candidate inferences, metaphor both reflects similarities and generates new similarities (Lakoff, 1990) between the domains being

compared. In brief, the degree of aptness of a metaphor is related to the interaction of saliency of relationships in the base domain, degree of relational fitness between base and target domains.

There seems to be levels of aptness which vary across cultural groups. It is supported by the metaphorical acceptability ratings and levels of aptness that vary depending on the matching of base relationship with parallel relationships that participants produced. However, the frequency of elements in the spoken language and daily life has been found to be effective in metaphor comprehension and aptness (Thibodeau & Durgin, 2011). Therefore, priming which provides context for a metaphor before presenting it to be judged is also effective (Bambini, 2016). Since the metaphors in MSS were also used in ATPRS and participants were presented with the first metaphoric statements in MSS, there might be a possibility that the items in ATPRS were primed and it affected the high acceptability of the parallel relationships. After the participants had comprehended the context, they were asked to judge the acceptability of its similarity with another relationship which is based on a similar mapping system. The highly accepted items in MSS and positively correlated with ATPRS might indicate a high aptness as well since the salient feature given in the MSS is also used in ATPRS. When the salient feature in MSS was accepted, it was also accepted in ATPRS. This might prove the acceptance of the salient feature twice.

5.2.3. Discussion on the Metaphorical Relations Production

Metaphor production of the people from different cultural backgrounds did not reveal any differences in terms of either themes or the salient features of the metaphors. Furthermore, the categorised theme focus may prove that some features in the metaphor

vehicle and topic are salient and they make a metaphor more apt. However, even though these features can be categorized regarding theme and focus, they cannot be categorized according to the participants' cultural backgrounds.

Moreover, the categorization of relationships produced a support for the class inclusion model. For instance, as an ad hoc category, "bribery" in the relationship "bribery and society" was comprehended by all of the participants as "something that causes problems or corruption". In like manner, the most common ad hoc category in participants' metaphor production to describe "rooster song" in the relationship "rooster and rooster song" was "a usual or warning sound" such as "tweeting of birds, singing of people or ringtone or alarm of phones".

Furthermore, CMT suggests that abstract concepts are understood through concrete concepts. The metaphor productions of all the participants support it. For example, "anger" was described with concrete concepts like "fire". The concept "memory" was described with a concrete concept "hard drive". In addition, the conceptualization of the metaphors were similar, regardless of the participants' cultural backgrounds. For instance, the concept "progress" was always described with another concept that could "go up" such as "health". The concept "music" was described with another concept as "something energy-giving" or something that is "nutritious" such as water. Only "anger" was conceptualized differently by the participants regardless of their cultural backgrounds. While it was comprehended as something harmful that is "emitted" such as "exhaust", it was comprehended by some participants as something harmful that is "penetrated" such as "alcohol". In a nutshell, most of the domains (six of them) in the participants' productions included similar conceptualizations. All of these findings may support the universality of conceptual metaphors and the class inclusion model.

Moreover, there appears to be dominant themes chosen whatever the base relationship is. This might indicate dominance of general perspective of life or interested fields in life, other than semantic features of the words only.

5.3. Recommendations

In this subsection, recommendations were categorized into two headings: recommendations for language teaching and for future research.

5.3.1. Practical Recommendations for Language Teaching

It is important that learners discern the way figurative language is used in a particular culture because learning a language means learning about a culture (Bailey, 2003). Therefore, teaching metaphors in language classrooms might help learners gain the gist of the language they are learning. Teaching the underlying story behind the metaphor might be useful in language classes to teach the authentic language through culture and also fun (Littlemore & Low, 2006). In addition, Cortés (2007) states that students might face problems when the cultural aspects are not integrated into language teaching.

Moreover, the present study showed a significant effect of daily exposure to English on metaphor aptness. Thus, hearing metaphors often might enhance learners' understanding of them as they become conventional (Jones & Estes, 2005; Thibodeau and Durgin, 2011). In addition, engaging in metaphors can enhance the understanding of the culture of the language, thereby it may elevate sensitivity to other cultures. As a result, learners might have a better intercultural awareness especially in multicultural classrooms. The different understandings of the same metaphor might be discussed in classrooms to point out the similarities and differences in order to boost their understanding. Role play activities which will require learners to include their own

metaphors might contribute to their understanding of metaphors and its cultural differences in this aspect.

Beside its contribution to the target language authenticity through providing cultural background, understanding metaphors might help boost vocabulary learning and critical thinking skills of learners. One concept in memory modelling is dual coding which helps with lexical item recall by linking a word or expression to a mental picture (Paivio, 1987). Dual coding can be used to assist students connect words to specific source domains or a context by making them aware of the metaphorical nature of words or expressions. For instance, drawing a mental picture of how the phrase "show someone the ropes" came to represent a sailor guiding a newbie around a ship can help language learners comprehend and recall the expression's meaning, thereby the meaning of the words in the phrase might be recalled better. If the second language learners are taught metaphors in contexts, they will have a better understanding of the words which form the metaphors. Understanding and retention are aided by this deliberate processing. Thus, activities which will require learners to work on mappings between words might be used in classrooms to boost both the retention and vocabulary learning. For instance, activities such as drawing the pictures of metaphors can be done in order to see conceptual mapping or blending better as in Birdsell's study (2019). Such activities might make learners question both the concepts and the semantic features of the words. Activities which will make learners provide explanations to words which are mapped onto each other in a metaphor might make learners think about both the words and the relationship between them. These kinds of activities can also promote critical thinking skills of the learners, which has been proven to be another important skill in language learning (Huitt, 1998).

Language teachers have an important role in the transfer of accurate cultural features through metaphors because they mostly teach the hidden meaning of metaphors. Therefore, the teachers should pay attention to the feedback they provide for metaphors while shaping the learners' understanding of them. They should take into account both linguistic accuracy and cultural appropriateness while giving feedback. The feedback given on the culture's role in the metaphor can be given explicitly (Tsitoura, 2022) since metaphors themselves are already implicit and two implicit inputs might increase the learners' cognitive load. The teachers should include more authentic materials which contain metaphors and other figurative tools in contexts to promote learners' aptness of the metaphors in the target language. Lastly, low apt metaphors might be difficult to understand even for the native speakers. Thus, teachers should motivate learners by reminding them that understanding metaphors might be a lifelong process.

5.3.2. Recommendations for Further Research

The research on cultural variation in metaphor understanding and aptness have always been analyzed through linguistic devices which were assumed to be signalling culture. However, only language might not be enough to signal culture as language might be a reason for culture to shape. Thus, the future metaphor aptness studies on cultural differences might be analyzed by both a researcher in sociology and one in linguistics to better understand the interaction between these perspectives.

The effects of variables on the correlation of each item might be analyzed to better understand if some things have effects on metaphor aptness of the participants. Moreover, the correlation between all the items in each scale can be categorized regarding the

participants' cultural backgrounds to examine the relationship between the aptness and parallel relationships.

The number of the participants can be increased for results to be better analyzed and people from countries which are less multicultural can be included to better understand the cultural variation.

The metaphorical sentences in MSS are rated before the parallel relationships in ATPRS. This means that participants were presented with a context, prime. The studies have shown that priming before metaphorical judgements might affect the participants' ratings (Boroditsky, 2001; Chiappe et al., 2003; Thibodeau & Durgin, 2011). The metaphors might be given without sentences to avoid priming. The features of each metaphor domain in MSS can be asked to be rated and salient features of each participant group can be analyzed to be categorized. In addition, salient features might be collected from the participants of each group separately through TPRP and the participants from the other groups might be asked to rate its acceptability. Furthermore, metaphorical relations that participants produced can be analyzed only to reach salient features of domains in each metaphor to better see if the aptness varies depending on only the semantic saliency of domains or thematic saliency matters as well. Lastly, individual cognitive differences and personality differences scales can be used before the MSS and ATPRS to analyze the effect of nationality and compare it to individual differences. All in all, the study's cross-cultural variation analysis might be strengthened in this way.

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APPENDICES

APPENDIX A

Consent Form

Dear participant,

I'm conducting a study for my master thesis in the English Language Education MA Program at the Institute of Graduate Studies of Istanbul Medeniyet University. Within the scope of this study, variations of metaphor interpretation of various English speakers will be examined.

You're kindly invited to participate in this research and complete a questionnaire including questions regarding general information such as your age, and 3 metaphor tests during an interview with the researcher. You are not expected to share any information revealing your identity. You are expected to share no information about the tests here with anyone else since the other participants mustn't be bias against the metaphors in the test. You can ask the researcher if you don't know the meaning of a word. The answers you provide will remain anonymous and will be used for the aims of this research and for publication only. Your participation in this study is voluntary, and you have the right to stop at any time while completing anything in this study. It is estimated that completing the interview will take 30-40 minutes.

Thank you in advance for your participation. Your answers are precious for the present research. In case of any questions or concerns, you may contact the researcher at ebrusen@yahoo.com.

APPENDIX B

Background Questionnaire

1. Your age

☐ 18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 22+

2. Your gender

☐ Female

☐ Male

☐ Not to prefer to say

3. Where are you from? (Please write your country and city)

4. What's your mother tongue?

5. Years of studying English (Since you first started to study English in your life.)

If you don't see the exact years of your study, please choose the duration which is closer to yours.

☐ 1 ☐ 5 ☐ 10 ☐ 15 ☐ 20

6. Years of speaking English (Since you first started to speak English in your life.)

If you don't see the exact years of your study, please choose the duration which is closer to yours.

☐ 1 ☐ 5 ☐ 10 ☐ 15 ☐ 20

7. Have you ever lived abroad?

☐ No

☐ Yes (please write the country or countries)

8. How often do you hear English each day?

☐ Always ☐ Often ☐ Sometimes ☐ Rarely ☐ Never

APPENDIX C

MSS (Metaphorical Statement Scale)

Rate the following sentences with 1, 2, 3 or 4.

1= Unacceptable 2= To some extent acceptable 3= Acceptable

4= Completely acceptable

1. The disease of bribery is so widespread in this country and it is difficult to get rid of it (bribery is a disease).
2. The lightning was a huge sharp axe that made the large tree into two halves (lightening was an axe).
3. Music was a tranquilizer for him and helped him to overcome his pains (music is medicine).
4. Early morning he woke up by the alarms of the roosters in the yard of his house (the rooster is an alarm clock).
5. Her discipline was a fertilizer that helped him to grow (discipline is a fertilizer).
6. When John is angry, he is an eruptive volcano (anger is eruption).
7. Memory is a huge storage that can save a lot of information for a potentially long time (memory is a reservoir).

APPENDIX D

ATPRS (Acceptability of Two Parallel Relations Scale)

Put 1, 2, 3 or 4 beside the following sentences.

Unacceptable = 1 To some extent acceptable = 2 Acceptable = 3

Completely Acceptable = 4

1. The relationship between bribery and society is similar to the relationship between disease and human.
2. The relationship between lightning and the halved pine tree is similar to the relationship between an axe and wood.
3. The relationship between music and human is similar to the relationship between medicine and human.
4. The relationship between rooster and rooster's song is similar to the relationship between an alarm clock and its ring.
5. The relationship between discipline and human is similar to the relationship between fertilizer and plant.
6. The relationship between anger and human is similar to the relationship between eruption and volcano.
7. The relationship between memory and past events is similar to the relationship between reservoir and water.

APPENDIX E

TPRP (Test of Parallel Relations Production)

Fill in the blanks with the proper words. In each case, state the reason for your choice.

Example: The relationship between spider and spider web is similar to the relationship between fisherman and fisher net.

Reason: They both use these tools for hunting.

1. The relationship between bribery and society is similar to the relationship between _____ and _____.
2. The relationship between lightning and pine tree is similar to the relationship between _____ and _____.
3. The relationship between music and human is similar to the relationship between _____ and _____.
4. The relationship between rooster and rooster song is similar to the relationship between _____ and _____.
5. The relationship between discipline and progress is similar to the relationship between _____ and _____.
6. The relationship between human and anger is similar to the relationship between _____ and _____.
7. The relationship between memory and past events is similar to the relationship between _____ and _____.

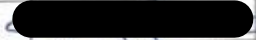
APPENDIX F

Approval Form Received From Istanbul Medeniyet University Educational Sciences Ethics Committee

 İSTANBUL MEDENİYET ÜNİVERSİTESİ	T.C. İSTANBUL MEDENİYET ÜNİVERSİTESİ EĞİTİM BİLİMLERİ ETİK KURULU KARARI
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Tarihi 06/03/2023	Sayısı 2023/03-01
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ARAŞTIRMA BAŞLIĞI	Farklı Kültürel Geçmişten Gelen İngilizce Konuşanların Metafor Anlama Yatkınlığındaki ve Yorumlamasındaki Çeşitlilik
ARAŞTIRMANIN TÜRÜ	Karma
ARAŞTIRMACI(LAR)	Ebru Şen
KARAR	Etik açıdan uygundur.

Görevi	Kurul Üyeleri	İmza
Başkan	Prof. Dr. Halil İbrahim SAĞLAM	
Üye	Prof. Dr. Ahmet AKIN	
Üye	Prof. Dr. Özlem FEDALİ	
Üye	Prof. Dr. Selami AYDIN	
Üye	Prof. Dr. Yeşim GÜLEÇ ASLAN	
Üye	Doç. Dr. Özge CENGİZ	
Üye	Doç. Dr. Özcan Erkan AKGÜN	
Üye	Av. Fevziye DOĞRUEK	

ÖZGEÇMİŞ

KİŞİSEL BİLGİLER

Adı Soyadı: [REDACTED]

Uyruğu: T.C.

EĞİTİM

Derece	Kurum	Mezuniyet Yılı
[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	
[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	
	[REDACTED]	

İŞ TECRÜBESİ

Tarih	Kurum	Görev
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]