Reducing psychological distance in globally distributed teams

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Abstract

In this paper we consider how the concept of psychological distance can inform interventions that promote positive outcomes in transnational distributed teams. We focus on two primary characteristics of transnational distributed teams: physical distance between members, and social distance in the form of heterogeneity among members. We present a theoretical model describing how these characteristics of geographically distributed teams affect how members think and feel about each other. We discuss teambuilding interventions informed by the psychological distance perspective.

Keywords

Distributed, transnational teams, psychological distance, teambuilding interventions

Introduction

Distributed work teams whose members span multiple countries and locations are becoming ever more prevalent [9]. While improvements in technology can help these teams communicate, interpersonal challenges such as reduced trust and increased conflict remain [2]. We propose that these challenges are largely a function of psychological distance associated with bridging physical and social boundaries.

Understanding the psychological processes affecting members of globally distributed teams should inform the design of systems and interventions geared towards improving social dynamics and performance outcomes in transnational teams.

Much of the work on globally distributed teams conducted under the umbrella of HCI and Computer-Supported Cooperative Work has attempted to eliminate physical distance by recreating face-to-face interaction. Solutions such as improved teleconferencing systems attempt to re-create the essence of in-person encounters, such as the ability to make eye contact, have a shared visual space, etc. [8]. However, it is often infeasible or impossible for team members to interact synchronously in transnational teams separated by many time zones.

We argue that by better understanding the dynamics of psychological distance (which may include but are not limited to physical distance,) we can inform technology to support distributed teams. By considering in detail the information required to bridge physical and social distance, it may be possible to create lightweight, asynchronous interventions to foster closeness and cooperation in distributed teams. In this paper we consider the role of psychological distance in distributed multinational teams, and discuss how this perspective can inform interventions to overcome distance.

Psychological distance in distributed teams
Psychological, or perceived distance can be defined as the cognitive and affective perception of how close or far something (for example, a person) is [11]. Construal level theory suggests that the greater the perceived distance between an individual and another object, person or event in terms of physical distance, time, or similarity, the more abstract and less accurate their perceptions of that item [3]. In a transnational distributed team, the physical and social distance between members and may influence how individuals conceptualize their team members, resulting in mental representations that are inaccurate and rely on categorization and stereotypes [11].

Transnational distributed teams involve people from different environments, separated by space and time. Perceived physical or spatial distance between people has been shown to affect individuals' attitudes and behaviors towards each other. For example, research by [1] suggests that people are less cooperative and more deceptive towards people they believe to be in a distant city as opposed to in their own city.

Transnational distributed teams are also inherently nationally diverse in membership. The heterogeneity among members is associated with "perceived diversity" or social distance. This social distance can also contribute to psychological or subjective distance between members because of difficulty relating to the other group with other group members, and the potential for subgrouping [2].

The psychological distance associated with these characteristics of transnational teams can lead to undesirable perceptions and evaluations, such as making negative generalizations about distant others [11] that are resistant to change over time. Reducing psychological distance should lead to improved performance and social outcomes such as learning, stronger relationships and desire to work together in the future [11]. In the next section we consider how

technological interventions could reduce psychological distance.

Reducing psychological distance in HCI

Psychological distance may be reduced through online interactions that do not involve seeing or hearing another person live. The most effective type of intervention may depend on the type of perceived distance it is meant to reduce (see Figure 1.) Here we consider how the psychological distance perspective can inform the design of interventions addressing psychological distance associated with physical distance versus social distance.
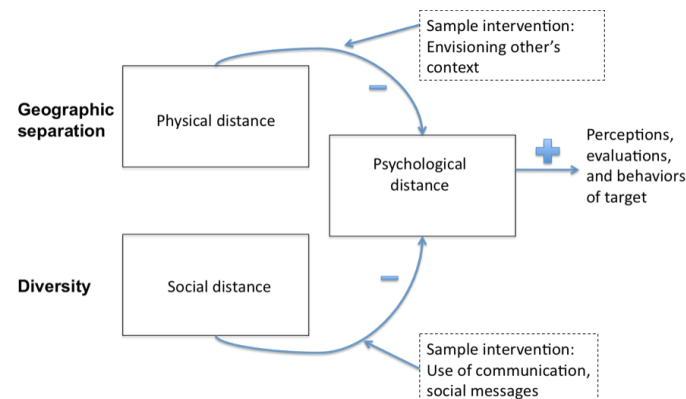

Figure 1. Selected factors leading to psychological distance in distributed teams and interventions that may mitigate distance

Physical distance: Envisioning others' contexts
Construal theory suggests that the psychological distance associated with physical distance is a function of abstract mental representations of distant people and situations. This work on construal level theory states that others are mentally represented and viewed in a more abstract and generic way as distance from the self increases [3]. Helping a person visualize another's context (e.g. through elaboration and the use of detailed images) may reduce perceived physical distance by making the remote location seem less abstract and more concrete.

Photo sharing is one activity by which participants can envision distant team members' contexts. A recent study about photo viewing and sharing in a globally distributed enterprise social networking site suggests that this activity may be an effective way to support context visualization and minimize distance [10]. Participants in this study reported feelings of connection to distant locations and greater understanding of distant colleagues' environments. Building on this qualitative result, in our own work we found that sharing details of locations through exposure to photos of others' contexts positively influenced behaviors and attitudes towards outgroup members in a simulated resource allocation task [7].

Social distance: Promoting a common identity
Social distance, on the other hand, may be reduced through the formation of a common group identity that emphasizes similarity [6][11]. Previous work on fostering commitment in online groups showed that simply having a team name, team logo and shared team goal increased contribution in an online movie site [5]. However, a shared identity can also help to reduce social distance by increasing perceived similarity and enhancing feelings of cohesion.

We have explored techniques for mitigating social distance through the use of virtual team-building activities, such as designing team crests, as a means of

fostering a sense of group identification and cohesion. Our results suggest that these activities can result in reduced social distance by promoting an overarching common identity for team members, reducing the impact of subgroup boundaries within a team.

Conclusion

Thus far, work pertaining to distributed teams in HCI has largely focused on overcoming physical distance by recreating face-to-face interaction. By more carefully considering the nature of psychological distance we may be able to inform lightweight and lower fidelity technologies that bridge this distance. By deploying these technologies in transnational teams we may also be able to extend our knowledge of psychological distance and the cognitive mechanisms underlying cooperation, cohesion, and effective performance in distributed teams.

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