



Interdependence model in cross-disability friendships

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ABSTRACT

The visual limitations experienced by blind individuals necessitate the development of friendships with sighted individuals, who are perceived as available and willing to help. The provision of the aid indicates a dependency of blind individuals on their sighted counterparts. However, the development of friendship broadens the scope of interaction, thereby transforming the dependency pattern into a more dynamic relational spectrum, ranging from independent and dependent to interdependent forms. This study aims to explore models of interdependent manifestations in friendships between individuals who are blind and those who are sighted. A qualitative approach utilizing a descriptive phenomenological method was employed. Data collection involved in-depth interviews with six informants, all of whom were male students from inclusive universities. The interdependent relationship patterns in these friendships are manifested through three key components: joint activities, shared experiences, and social support, each with its own model. The coherence of activities includes accidental, interference, and pure models. Bilateral and unilateral models characterize shared experiences, while social support comprises communal, transactional, and proportional models.

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Introduction

Individuals with disabilities (different ability–Term Substitutes dis-ability), specifically those with visual impairments, often face challenges in forming friendships. This difficulty arises from the critical role that sight plays in social interactions, which influences the interest of others (Brown et al., 2013; Roe, 2008). Individuals with visual impairments may struggle to detect and respond to nonverbal cues, such as eye contact, hand gestures, and facial expressions. This limitation can lead to reduced social networks and fewer opportunities to connect with others. In various contexts, blind individuals have a significant need for friendships as a primary source of social support, especially when compared to individuals with other physical disabilities, who tend to receive more social support from their parents (Rosenblum, 1997; Money et al., 2008; Senicar & Grum, 2012).

Friendship is one of the most significant psychological necessities for individuals who are blind (Herlina et al., 2008; Nurjaman & Faturachman, 2018). However, anatomical barriers hinder blind individuals from integrating socially, resulting in limited opportunities to form friendships (Pfeiffer & Pinquart, 2011). This situation is not only driven by challenges in social interaction (Brown et al., 2013; Celeste, 2006; Roe, 2008; Rosenblum, 1997) but also by

dissatisfaction with body image (Pinquart & Pfeiffer, 2012) and overprotective parental attitudes that restrict mobility (Khadka et al., 2012; Pinquart & Pfeiffer, 2011). Consequently, individuals who are blind must adapt to the limitations imposed by the loss of sight, which also involves a process of self-acceptance regarding their blindness (Stevellink et al., 2015).

Most blind individuals tend to choose friends from within the community of persons with disabilities or among other blind individuals, rather than from sighted or non-disabled individuals. This preference is rooted in the perception that forming friendships with sighted individuals involves a higher risk of rejection. As a result, a greater sense of comfort is often found in relationships with fellow individuals with disabilities (Rosenblum, 1997) or with other blind individuals who are perceived as better able to understand their physical condition (Higgins & Ballard, 1999). However, from a functional perspective, friendships with sighted individuals are more crucial for blind individuals, particularly as a source of social support (Reinhardt, 1996).

Such friendships can emerge through repeated contact or chance encounters that, over time, foster mutual judgment and interest. This process can facilitate the development of instrumental assistance (Nurjaman, 2018; Nurjaman & Faturachman, 2018). In this early phase of friendship, the relationship pattern may be identified as independent, dependent, or interdependent. For example, in the context of instrumental assistance, sighted individuals who assist blind persons out of attentiveness and/or availability often foster dependent or interdependent relationships. Conversely, assistance driven primarily by sympathy and/or availability may lead to independent relationships (Nurjaman, 2018). Based on the theory of interdependence, it can be argued that individuals are initially confronted with a dilemma between autonomy, which fosters independence, and closeness, which fosters interdependence—two dynamics that may alternate during the early stages of relationship development (Kelley et al., 2003).

Other empirical evidence suggests that the friendships between blind and sighted individuals often exhibit an asymmetrical dependency. First, friendship is frequently viewed as a context for providing support to individuals with disabilities (Nurjaman & Faturachman, 2018). When individuals with disabilities get more help, it can lead to increased dependency within these friendships (Nadler et al., 2010). Second, the tendency of blind individuals to depend on others (Broman et al., 2002; Camarena, 2013; Good et al., 2008) is frequently a consequence of social environmental barriers and a lack of accessibility (Hwang et al., 2015; Irwanto et al., 2010; Thohari, 2014). Thus, it is necessary to review how the three patterns of interdependent relationships manifest in daily interpersonal interactions.

The main assumption of the theory of interdependence is Lewin's formula $B = f(P, E)$, which interprets behavior (B) as a function of the interaction between individuals (P) and their environment (E) (Reis & Arriaga, 2013). Rusbult et al. (2003) present four key arguments that support the relevance of interdependence studies in interpersonal relationships. First, interdependence shapes everyday interactions: the pattern of interdependence highlights the constraints and opportunities inherent in interactions that are compatible, conflicting, or exploitative. Second, interdependence shapes the individual's mentality, including cognition and affect, by influencing how individuals interpret and respond to interdependent situations. Third, interdependence shapes relationships by defining the possibilities and limits within them, observable through factors such as commitment, trust, power, and conflict. Fourth, interdependence shapes the self: individuals develop stable preferences, motives, and behavioral tendencies as adaptive responses to interdependent contexts.

The main theme of interdependence theory is social interaction. Interaction (I) is a relationship of needs, thoughts, motives, and behaviors between two individuals (A and B) in a specific independent situation (S), as formulated with $I=f(S, A, B)$. At the level of analysis, at least three factors must be considered when predicting the interaction patterns between two individuals: first, the situational context in which the interaction occurs (e.g., where A has

greater power than B); second, the needs, thoughts, and motives of individual A when interacting with B; and third, those of individual B when interacting with A. The outcome of this interaction is determined by the degree of satisfaction—does the interaction fulfill the individuals' needs, such as providing a sense of comfort, or does it hinder their fulfillment? These interaction outcomes can be categorized as either concrete or symbolic. Concrete outcomes refer to directly experienced feelings of satisfaction or dissatisfaction, while symbolic outcomes pertain to broader implications and meanings attached to the interaction (Van Lange & Rusbult, 2012).

Based on its form, friendship characterizes more communal relationships that emphasize aspects of compatibility, togetherness, and support rather than collegial and hierarchical relationships (Faturachman, 2014; Nurjaman & Faturachman, 2018). This view aligns with the communal sharing model in Relational Models Theory (RMT), which arises when both parties perceive each other as being on equal and equivalent footing (Fiske, 1992). However, a relationship does not necessarily adhere to a single model; instead, they may reflect multiple relational models simultaneously (Rai & Fiske, 2011). Accordingly, this study aims to explore and conceptualize forms of friendship interactions that reflect independent, dependent, and interdependent relational patterns.

This research can contribute to a deeper understanding of the dynamics of social relations between individuals who are blind and those who are sighted, especially within the context of cross-disability friendships. By examining interdependent relational models—such as shared activities, mutual experience sharing, and the provision of social support—this study provides a novel perspective on how interpersonal relationships can adapt in the face of disability-related challenges. Furthermore, the findings may serve as a foundation for developing social interventions or training programs aimed at enhancing inclusivity and improving the quality of social interactions for blind or sighted individuals.

Method

This study uses a qualitative approach with a descriptive phenomenological method (Moustakas, 1994). The research was conducted in the Special Region of Yogyakarta, Indonesia. The study involved six key informants, comprising three pairs of friends. The characteristics of the research informants include: (a) male, and (b) students from an inclusive university, particularly UIN Sunan Kalijaga. In terms of visual impairment, two of the blind informants were blind, while one was partially blind. Their blindness backgrounds varied: one informant had congenital mild blindness, another had congenital mild blindness that progressed to total blindness at the age of 15, and the third became blind at the age of seven.

Regarding the nature of their friendship, two pairs of friends were classmates in the same department and cohort, frequently attending the same classes. The third pair were housemates but not classmates or faculty peers. The average duration of the friendships from the first encounter was approximately three years and two months. Judging from the beginning of the introduction, the first two pairs of friends met and greeted each other at the boarding house. In contrast, the other couple first interacted with each other during academic activities together (at the time of Study Orientation and Campus Introduction). In two of these cases, initial contact was initiated by the sighted friend, while in the other, the blind individual initiated the interaction. These friendship characteristics serve as a central focus in the subsequent analysis section. Thus, the unit of analysis in this study is the pair (dyad), rather than the individual.

This study also involved three additional informants, aimed to support data triangulation. These individuals were selected based on willingness and recommendations from the primary informants. All additional informants were male, sighted, and students. Two were classmates and in the same faculty as the primary informants, while the third was a roommate of one of the sighted informants.

Data collection was conducted through open and semi-structured interviews, designed to explore the participants' lived experiences of friendship. The researcher served as the primary instrument for both data collection and analysis. To ensure credibility, the study employed member checking, triangulation (with a significant other), and transferability strategies, which are achieved through detailed and comprehensive descriptions (Creswell, 2014; Willig, 2008). The ethical framework of the study adhered to the ethical principles of psychological research as outlined by Willig (2008), including the principles of no deception, the right to withdraw, debriefing, and confidentiality, as outlined in the informed consent form for this research.

Data analysis and interpretation were conducted within Moustakas' (1994) phenomenological framework, which comprises four distinct stages. First, *epoche*, the process of bracketing the researcher's prior assumptions to engage directly with the participants' lived experiences. Second, phenomenological reduction involves data immersion, pre-reflection, reflection, and reduction to identify the essence of the phenomenon. Third, imaginative variation structures the structural themes from previous textual descriptions, engaging in reflective analysis to discern potential contributing factors in the participants' friendships. Fourth, synthesis of meaning and essence is an intuitive process that integrates both textual and structural elements into coherent statements, capturing the nature of the participants' experiences.

Results

The interdependence in friendship between blind and sighted individuals in this study is manifested through three relational dimensions: the entity of togetherness in *activities*, *sharing experiences*, and *social support*. Shared activities were categorized into three models: *accidental*, *interference*, and *pure models*. Experience sharing was classified into *two* models: bilateral and unilateral. Meanwhile, social support was represented by communal, transactional, and proportional models—the latter being a potential or emerging form of support. These model labels were developed by the researcher, derived from general terms that best represent the relational dynamics found in the data. Variation across these models reflects the diversity in interaction patterns among the different pairs of informants, illustrating how interdependence manifests uniquely in each friendship.

Togetherness of Activities

The concept of togetherness in activities refers to collaborative efforts between individuals who are blind and those who are sighted. Unlike the mere similarity of activities, togetherness is driven by the distinct motivations of each participant, encompassing both personal and interpersonal factors. Personal motives pertain to the reactions of either blind or sighted individuals, which are focused on achieving their interests. In this context, interpersonal motives involve the collaborative activities undertaken by both parties to fulfill shared interests. By identifying these two types of motives, the interdependence evident in the coexistence of activities can be categorized into three models: accidental, interference, or pure.

Accidental model

The term '*Aksidental*' is derived from the English word *accidental*, which means unintentional or unexpected. Interestingly, the noun '*Aksidental*' is also included in the Indonesian dictionary, where it refers to a sign used in musical notation. In the context of this study, however, the term '*Aksidental*' is defined as a sudden event that occurs without prior planning, resulting from situational and unforeseen factors.

The togetherness observed in the accidental model of activity reflects the interdependence of friendship, characterized by latent motives and minimal or near-zero interests ($\alpha \rightarrow 0+$). This finding means that the togetherness in accidental activities reveals ambiguous motives on

both the blind and the sighted sides, resulting in a lack of significant interest from either party. This accidental model can be illustrated by the collaborative activities that emerge as friendships develop between individuals who are blind and sighted individuals. The togetherness in these accidental activities represents a pattern of independent relationships, as individual situational factors, rather than friendships, more influence individuals' dependencies. In the case of RT and NG, *joint* activities occur primarily due to situational influences.

So at that time, all the guys at the boarding house were hanging out, grilling satay—pretty much everyone was there. He was sitting quietly. So I called him over, invited him, took his hand, and said, “Come on, dude, join with us” (NG-IA3: 63-65).

Interference model

The togetherness of the interference model refers to activities jointly undertaken by blind and sighted individuals as a result of third-party intervention. Initially, the blind and sighted individuals were in a neutral situation, despite already being friends. In this context, the third party acts as the primary facilitator, initiating and offering shared activities to both individuals. Each party—the blind and the sighted—has the autonomy to accept or reject the offer, based solely on personal motivation, independent of their partner's involvement or non-involvement. When blind and sighted individuals accept a third-party invitation, their motives converge into a shared, collective purpose. In such instances, efforts to fulfill personal interests are pursued through the mutual achievement of goals associated with the third-party-initiated activity. This point means that the efforts of blind or sighted individuals to meet personal interests can be carried out by trying to achieve the common goal of activities offered by third parties.

For example, WN and HL were previously involved in a joint business venture, selling catering services, and then *Nasi Liwet*. This joint business led to frequent interaction, not only while selling nasi liwet but also during informal gatherings. HL reported that his involvement in the business significantly strengthened his friendship with WN.

Initially, the business idea originated from Zamhari and Aziz. Then they wanted to build a team. Eventually, they recruited me, WN, and Aris, since we were the ones they felt closest to. So yeah, the five of us ended up meeting at the Angkringan stall, and we all agreed to start working on the business idea together (HL-IA1: 171-175).

Pure models

The model is referred to as 'pure' because the motivation for engaging in joint activities originates solely from the two individuals involved, without any third-party influence. The "togetherness of pure model" is characterized by the merging of personal motives into shared interpersonal intentions. In this context, each individual prioritizes their partner's participation over the specific nature of the activity itself. As a result, regardless of the activity's nature, the individual is willing to participate voluntarily as long as it is done with their friend.

He's usually the one who offers the place and sets the time. When he heads out, I go too. He's the one who usually says, “DL, I'll wait for you in the lobby.” So I meet him there (DL-IA2: 215-217).

The emergence of pure activity togetherness can shape the pattern of interdependence by identifying the needs associated with the activity and the personal resources utilized. When BW and DL study together, BW's needs are significantly greater than DL's due to the challenges posed by blindness, which hinders the comprehension of lecture materials. This limitation suggests a higher level of dependency for BW compared to DL. However, this does not inherently position BW as a subordinate party and DL as a dominant one. This point is illustrated by BW's ability to dictate the time and place for their joint learning sessions, to which DL adapts. Individuals create shared resources, and the dynamics often shift, allowing one individual to take on a leading role while their friends become subordinate to them. Resources used in the coexistence of pure activities can determine the influence line hierarchy

dominance, although these dynamics remain flexible.

Sharing Experience

Sharing experiences among individuals who are blind or sighted individuals occurs through the exchange of both private and public information with their peers. The private information gathered from the experiences of research participants includes personal narratives such as love stories, family backgrounds, academic challenges, and aspirations. Public information is typically shared in discussion forums that cover topics such as politics and health, or in the form of informational support. By analyzing the nature of the information exchanged with their partners, one can identify the interdependence model, which may reflect patterns of independent relationships, asymmetric dependence, or mutual interdependence.

The following description categorizes experience sharing into two models. The first, the bilateral model, emphasizes a reciprocal pattern between the blind and sighted individuals when sharing experiences. The second, the unilateral model, occurs when experience sharing is conducted by only one party, without eliciting a similar response from the other party.

Bilateral model

This model is demonstrated by the existence of a reciprocal pattern in the sharing of experiences between individuals who are blind and those who are sighted. In this study, the reciprocity in sharing experiences is classified into three categories. The first category involves the reciprocity of information that is equally private. The second category pertains to the reciprocity between private and public information. The third category encompasses the reciprocity of information that is entirely public. By identifying these three categories, we can determine the degree and pattern of interdependence between them. When the first category occurs, interdependence is strong and exhibits a symmetrical pattern. In contrast, the second category results in an asymmetric dependency pattern with an incomplete degree of reliance. When the third category is present, interdependence is at its lowest level, allowing both parties the opportunity to become independent of one another.

Bilateral experience-sharing as a manifestation of interdependence emerged in both friend pairs, WN–HL and BW–DL. This finding is evident, as it transforms personal information into interpersonal knowledge shared with their respective partners, reflecting openness and trust, which inherently involves partial risk.

WN's love story was also revealed. His mom was curious, you know. That's when she found out about WN's secret, especially his romantic life. He's a bit shy when it comes to sharing that kind of stuff with his mom. But with me, he's more open. He talks to me a lot—shares things. So yeah, I already knew how it all happened (HL-IA1: 84-88).

Unilateral model

This model occurs when experience-sharing is unidirectional—initiated by one party without a reciprocal response from their friend. For example, when RT massaged NG, NG often shared both private and public experiences. In contrast, RT did not disclose his personal experiences but instead chose to listen and respond to NG.

But maybe it's because I don't feel like getting close to people anymore. Still, if someone wants to talk to me, I'll listen. And if they want my opinion, I'll give it (RT-IT3: 223-225).

Social Support

Social support represents an expression of care or sympathy—offered by either the blind or sighted individual toward their friend—in a bidirectional relational pattern (blind→sighted; sighted→blind). This study identifies four categories of social support: material, instrumental,

informational, and emotional support.

In the following description, the various forms of social support outlined above will be examined through the lens of the social support model, highlighting the interdependence between blind and sighted individuals in their friendships. Within this context, there are at least three distinct models of social support: communal, transactional, and proportional, each differentiated by its emphasis. The communal model of social support underscores the role of friendship, viewing social support as an integral aspect of that relationship. In contrast, the transactional model emphasizes reciprocal interactions, framing social support as a form of exchange. Lastly, the proportional model focuses on the nature and extent of social support provided. This model suggests that when one individual offers a specific type of social support at a particular frequency, their partner will reciprocate with the same type and frequency of support at different times. However, research data indicates that the proportional social support model is relatively weak, as it is only evident in one of the expressions among sighted individuals.

Communal model

The communal model of social support is characterized by a genuine concern that drives individuals to provide support to their respective partners. Individuals do not focus on the expectation of reciprocity for the assistance they offer; instead, they give support voluntarily based on friendship. When a person with a visual impairment receives social support, it does not create an obligation to reciprocate; rather, it is perceived as an expression of genuine concern and friendship. In this context, the distribution of social support is non-linear, meaning that support is exchanged freely between both parties without regard to the amount provided. Consequently, social support evolves into an investment in friendship that fosters interdependence between both parties. This gesture is evidenced by HL's routine of visiting his friend three times a week, even when the residence distance increases. Similarly, WN, although contact with HL has become rare, is still maintained through social media. The existence, persistence, and resistance between the two parties, even despite changes in their circumstances, indicate that social support is fundamentally viewed as a function of friendship. Therefore, the social support of the communal model in the friendship between HL and HL represents a manifestation of symmetrical interdependence.

I used to visit WN's place frequently. Back when his boarding house was still nearby, I'd often stay over. But now that he lives a bit farther away, I usually only go once or twice a week—maybe three times at most (HL-IA1: 74-77).

Transactional model

The exchange of social support between partners defines the transactional model of social support. This model emphasizes the theme of reciprocity. When one blind individual provides social support to another, the recipient is expected to reciprocate with social support in return, and vice versa. It is important to note that the support exchanged does not have to be proportional; the resources shared between the two parties do not need to be equivalent. Consequently, material support can be reciprocated with instrumental support or other forms of social support. In this context, social support is not merely an investment entity; instead, it functions as an exchanged resource. This dynamic results in a separation between the blind and the sighted individual, rendering them independent of one another. However, in different circumstances, it can also create an asymmetric dependency pattern. This situation occurs when one party views the social support they provide as a transactional resource, while their partner offers social support based on genuine care and friendship. The transactional model of social support is clearly illustrated in the friendship between RT and NG. Within this friendship, forms of social support were identified as the material basis for their transactions: instrumental and informational support.

I'm not entirely sure about the price. He always says, "Whatever, it's up to you." But

you know, we kind of get it—how much is fair to give. I mean, come on, you're not gonna provide just five thousand rupiah, right? [laughs] That'd feel wrong! Especially since we're in college now, there are many needs, such as buying an internet quota. Or sometimes I'll ask, "How much, RT?" and he'll say, "No worries, whatever." But I'd feel bad, so I usually give twenty (Rp20,000), sometimes twenty-five (Rp25,000). One time after futsal, my foot hurt, and he gave me a massage. I only gave him fifteen thousand (Rp15,000) because I didn't have any money at the time. However, the nice thing is that he never complains. (NG-IA3: 426-434).

Proportional models

This model expands upon the transactional model, which emphasizes exchanges. In contrast, the proportional social support model is more specific, characterized by a direct equivalence between the support provided and the support received. This assertion implies that, within this model, social support must not only be of the same type but also proportional in quantity. The development of this model is based on the expressions of BW informants regarding the support extended to his friendship with DL. However, the proportional model appears to be weak, as the data presented is limited to expressions without accompanying specific descriptions. Furthermore, the social support provided by DL suggests a communal model of care. Therefore, the social support aspect of the proportional model should not be considered a definitive research finding but rather a potential framework for further investigation.

I have many friends with whom I'm close. However, I now want to be more selective. I mean, if someone wants to get close to me, it shouldn't just be because they need something from me—I should be getting something out of it too. I don't want it to be one-sided, where they come around when it benefits them, but when I need them, they're not there (BW-IT2: 182-203).

Discussion

Friendships between blind and sighted individuals can foster a range of relationships characterized by independence, interdependence, and mutual dependence. These dynamics are expressed through shared activities, experiences, and social support. In exploring the interdependence that arises from these interactions, three models emerge: the accidental model, the interference model, and the pure model. The accidental model represents a unique response from individuals who are blind, demonstrating awareness of their surroundings without being driven by relational motives. While this model shares similarities with the interference model, it exhibits a more distinct pattern.

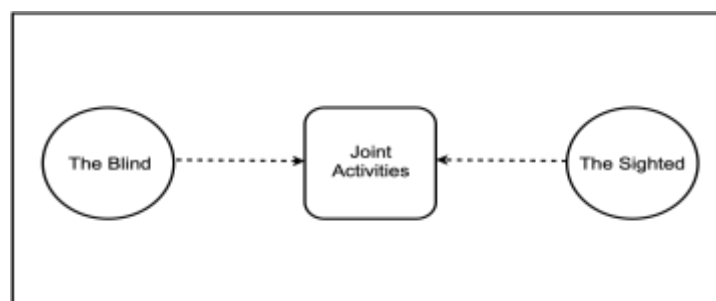


Figure 1. Accidental Model

Figure 1 illustrates how blind and sighted individuals engage in activities together. The dotted line represents the underlying motivation of both parties to participate in joint

activities. This relationship indicates that the reason for their collaboration is not explicitly defined. The presence of the dotted line, which connects their shared activities, is influenced by situational factors. Consequently, the independence of the two parties is not perceived as a reflection of a lack of friendship; instead, it creates opportunities for both individuals to become acquainted and foster genuine friendships.

The cohesion of the interference model activities is established through the involvement of third parties, whether individuals or groups, who exist outside the didactic relationship. Nonetheless, both models emphasize personal freedom as an individual choice to participate in collaborative activities. Roccas and McCauley (2004) have explored the connection between values and relational models. Values that prioritize personal interests, such as self-direction and stimulation, often result in superficial relationships. The value of self-orientation is evident in individuals who emphasize personal autonomy by demonstrating their independence and self-sufficiency. Those who value stimulation tend to prioritize personal enjoyment and satisfaction. Based on this concept, the coexistence of the activities of the accidental model and interference reflects a relationship between blind and sighted individuals at the acquaintance level, or even in the pre-friendship stage. Therefore, the interplay between the accidental model and the interference model not only illustrates the dynamics of independent relationships but also predicts their progression. In this context, the activities of the interference model are perceived as more effective in fostering the relationship between blind and sighted individuals toward friendship than those of the accidental model.

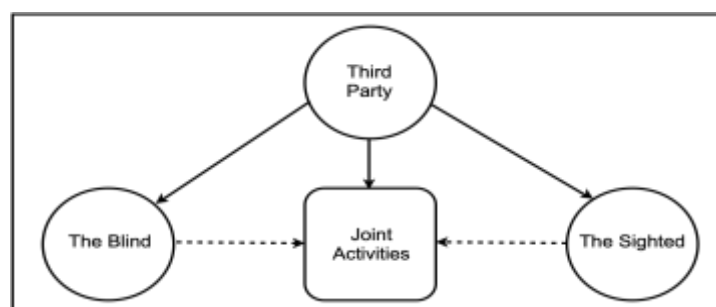


Figure 2. Interference Model

Figure 2 illustrates how the involvement of third parties encourages individuals who are blind or sighted to participate in shared activities. The dotted line represents the preference of blind individuals and their sighted companions to engage in activities based on personal motivations rather than solely due to their partner's involvement. While third parties facilitate these shared experiences, they simultaneously strengthen the interdependence of friendships between blind and sighted individuals. This highlight suggests that the inclusion of third parties in these activities fosters opportunities for meaningful interaction between both groups. Consequently, the dynamics of friendship among blind and sighted individuals can be influenced by these shared experiences. Therefore, it is essential to exercise selective attention to filter the outcomes of these shared activities, focusing on reinforcing positive experiences that enhance friendships while neutralizing negative experiences that could potentially harm these relationships.

In contrast to the pure model, which suggests the presence of relational motives, this model reflects the desire to engage in activities with a pair of friends, regardless of the specific nature of the activity. It can be viewed as a model of communal sharing or equality-matching relationships, depending on the context of the friendship. The communal sharing relationship model emphasizes the importance of unity and embodies the values of virtue and universality through sincerity and goodwill (Rai & Fiske, 2011; Roccas & McCauley, 2004). In this context, the togetherness inherent in purely modeled activities is perceived as an individual function in fulfilling the role of a friend. This finding suggests that activities with friends are not regarded

as burdensome but are undertaken voluntarily, as friendships are fundamentally based on sincerity (Dwyer, 2002).

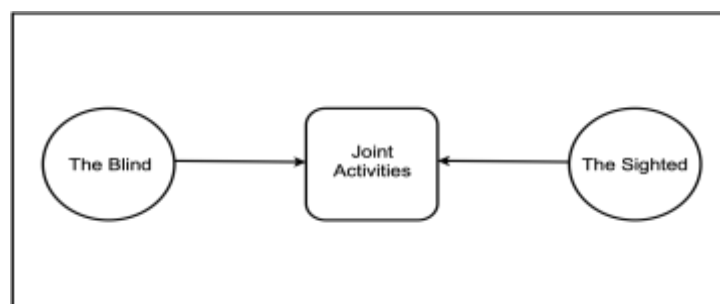


Figure 3. Pure Model

Figure 3 illustrates the preferences of blind and sighted individuals for engaging in activities together. A solid line represents the personal motivations of each party to participate in these activities. When the collaborative model of activities is implemented, personal motivations merge into interpersonal motivations, characterized by a focus on achieving common interests. This finding demonstrates a strong interdependence between blind and sighted individuals. The collaborative model of activities is viewed as a manifestation of symmetrical interdependence in the friendships between blind and sighted individuals.

The togetherness of pure model activities can also be viewed as a reflection of the equality matching relationship model, which emphasizes reciprocal patterns (Rai & Fiske, 2011). According to this model, the unity of activities is perceived as the manifestation of individual reciprocity between a pair of friends. This scenario may arise when the needs of both parties engaged in activities are not comparable. In other words, individuals with lower needs tend to participate in activities together because their friends have also engaged in similar pursuits. Roccas and McCauley (2004) suggest that if the prevailing alternative is a relationship governed by needs, then the equality matching model embodies values of power and achievement.

The coexistence of communal sharing and equality matching confirms that the integration of pure model activities can illustrate the manifestation of [inter]dependence. When the pure model aligns with a communal sharing relational framework, the collective nature of activities reflects the interdependent relationships that exist within it. Conversely, when the pure model aligns more closely with the equality matching relational model, it signifies the emergence of independent relationships. However, if there is a discrepancy in the relational model tendencies—where one party perceives the collective activities as a function of friendship while the other views them as a reciprocation of favors—this scenario reflects the emergence of asymmetric dependent relationships. This finding indicates that the first party tends to rely on the second party, as the shared activities they engage in become an investment in their friendship (Kelly et al., 2003; Rusbult et al., 2012).

In addition to the shared activities, the interdependence between blind and sighted individuals is evident in their exchange of experiences. The sharing of experiences within the unilateral model is characterized by the lack of a reciprocal response from one friend when personal information is transformed into interpersonal details. This model can be viewed as an inversion of the authority-ranking relationship model. Specifically, while the authority-ranking model emphasizes a power dynamic flowing from the dominant party to the subordinate party, the unilateral model suggests that the subordinate party is more likely to hold power in the context of experience sharing (Fiske, 1992). Given that the context under discussion involves sharing experiences, which serves as a form of relational investment, this inversion model becomes feasible. It is often suggested that the subordinate party holds

greater control, as individuals receive private information from the dominant party during the sharing of experiences. Consequently, the unilateral model can be interpreted as a representation of asymmetric dependent relationships. However, this interpretation is contingent upon the depth and breadth of the personal information exchanged (Baumeister & Vohs, 2007). If the information shared is superficial, then the experience-sharing within the unilateral model may instead reflect independent relationships.

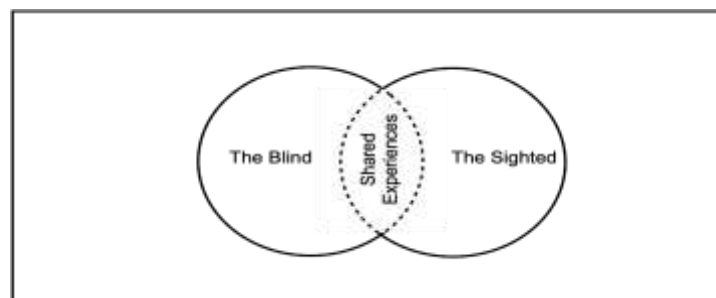


Figure 4. Bilateral Model

Figure 4 illustrates the bilateral experience-sharing model between a blind individual and a sighted friend. The dashed lines represent the flow of accessible information between both parties, which is transferred to their respective partners. When one party—either the blind or sighted individual—shares a personal experience with their friend, the other party reciprocates by sharing a similar experience. This dynamic leads to a symmetrical form of interdependence, as both individuals become mutually dependent on each other, but only in the context of sharing private or sensitive personal information. As a consequence, if one party discloses their friend's information to others, effectively making it public, they risk receiving a similar response from their friend, who also possesses private information about them.

In contrast, the bilateral model of experience sharing emphasizes reciprocal patterns in transforming private personal information into interpersonal content. As described earlier in this subchapter, the bilateral model reflects a combination of communal sharing and equality matching relationship frameworks. Specifically, the bilateral model, as a form of equality matching, centers on reciprocal exchanges where the primary material is personal information. Baumeister and Vohs (2007) note that openness in reciprocal patterns can emerge even at superficial levels of intimacy. For instance, when two individuals are newly acquainted, they may feel comfortable exchanging basic personal details or discussing common topics. These early reciprocal interactions, though limited in depth, have the potential to foster mutual liking (Spacher *et al.*, 2013). Accordingly, when blind and sighted individuals share experiences involving public—rather than private—information, the interaction exemplifies an equality matching model and suggests an independent friendship dynamic.

The dynamic shifts, however, occur when the bilateral model aligns more closely with the communal sharing relationship model. At this deeper level, experience sharing transcends personal responsibility for maintaining the relationship and instead reflects the role of friends as attachment figures, sources of comfort, and secure emotional bases (Shaver & Mikulincer, 2012). In this context, the content of disclosure tends to be more private, functioning as a form of relational investment. The deeper and broader the private information shared, the greater the volume of psychological and emotional investment in the friendship (Kelly *et al.*, 2003; Rusbult *et al.*, 2012). Thus, when experience sharing reflects the communal sharing model, it indicates an interdependent relationship, provided that the exchanged information is private and confidential. Conversely, if the exchange involves a mix of private and public information between friends, it may reflect an asymmetrical dependent relationship.

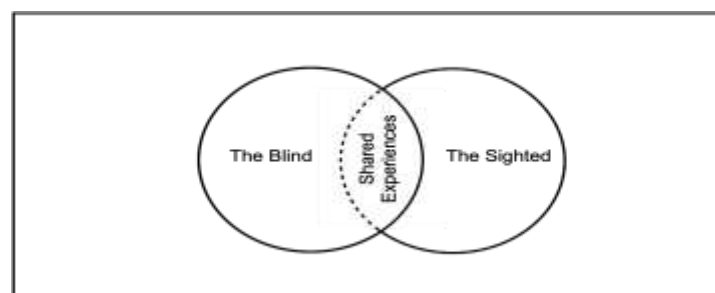


Figure 5. Unilateral Model

Figure 5 illustrates the shared experiences of sighted individuals who did not get a similar reaction from their blind friend's partner. The dotted line around the sighted individual's circle represents the accessibility of both public and private information to the blind friend's partner. In contrast, the solid line of the blind individual's circle, which penetrates that of the sighted individual, signifies a lack of reciprocal response, indicating an imbalance in the exchange. At first glance, this model points to an asymmetric dependency pattern. However, this conclusion is not entirely conclusive, particularly if the accessibility of information is driven more by individual personality traits than by relational dynamics. Thus, the unilateral model of experience sharing more accurately reflects a pattern of independent relationships.

Interdependence in the friendships between blind and sighted individuals is also expressed through the provision of social support. Social support in the communal model aligns with the communal sharing relational framework. Emphasizing voluntariness and sincerity, this form of support is not only perceived as a function of friendship but also as a form of relational investment, which has the potential to lead to either interdependent relationships or asymmetrical dependent ones. Similar to the previous review, interdependent relationships arise only when both friends offer mutual and sincere support. In contrast, asymmetrical dependence occurs when the motivations behind providing support are ambivalent or imbalanced. Nevertheless, blind individuals typically require more instrumental social support than their sighted counterparts (Nurjaman & Faturochman, 2018; Richardson, 2002). As a result, these friendships more often take the form of asymmetrical dependency rather than balanced interdependence. This tendency is influenced not only by anatomical aspects of blindness (Broman *et al.*, 2002; Camarena, 2013; Good *et al.*, 2008) and situational constraints (Hwang *et al.*, 2015; Irwanto *et al.*, 2010; Thohari, 2014), but also by cultural factors (Wang & Lau, 2015). Thus, even though the communal model of social support reflects communal sharing at a conceptual level, functionally it aligns more closely with the authority ranking relational model. According to Roccas and McCouley (2004), *the authority ranking* corresponds with values related to security. In this context, the sighted friend—as the dominant party—not only provides a sense of security through consistent instrumental support but also takes responsibility for maintaining the stability and harmony of the friendship.

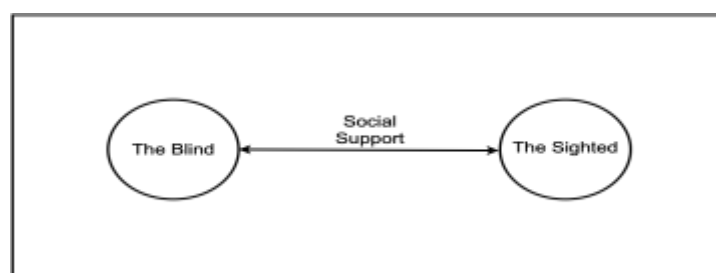


Figure 6. Communal Model

Figure 6 illustrates the arbitrarily distributed social support in friendships between blind and sighted individuals. The bipolar firm line represents social support functioning as a core component of the friendship, indicating that both individuals are equally positioned as partners in providing and receiving support. Consequently, social support is conceptualized as a form of relational investment, leading to symmetrical interdependence.

Beyond the communal model, interdependence in social support is also manifested through transactional and proportional models. Conceptually, the proportional model represents an extension of the transactional model, offering a more nuanced but less empirically robust framework for understanding the data. Nevertheless, both models reflect a cost-benefit orientation, aligning with the market pricing relationship model (Fiske, 1992). In this context, social support is viewed as an exchange, one that is more psychological than material in nature. In friendships between blind and sighted individuals, this form of transacted social support tends to be highly flexible. This relationship highlights that both parties understand they are not obligated to reciprocate in kind or within a specific timeframe. McGraw and Tetlock (2005) explain that other relational frameworks, such as communal sharing, authority ranking, and equality matching, can influence the market pricing model. As a result, the perceived value of the exchanged support may be reduced when a close relationship, such as a friendship, binds the two individuals.

Table 1. Affirmation of Models of Interdependence Manifestations in Friendship of Blind and Sighted Individuals based on Relational Models Theory (RMT)

Interdependence Manifestation	Type	RMT	Relationship Patterns
Togetherness of Activities	Accidental Interference Pure	Null relationship	Independence
		Null relationship	Independence
		Communal sharing	Interdependence
		Equality matching	Independence
		Communal sharing X Equality matching	Dependencies
Sharing Experience	Unilateral	Inversion of authority ranking	Dependencies
	Bilateral	Communal sharing	Interdependence
		Equality matching	Independence
		Communal sharing X Equality matching	Dependencies
Social Support	Communal	Communal sharing	Interdependence
	Transactional	Authority ranking	Dependencies
		Market pricing	Independence
	Proportional	Market pricing	Independence

Based on Table 1 shown above, the models of interdependence manifested in the friendships of blind individuals are consistent with the four relational models proposed by Fiske (1992). Overall, the communal sharing and equality matching relationship models are considered more prominent than the other two models. Additionally, an inversion of the authority ranking relationship model was observed in the manifestation of unilateral experience sharing. This inversion suggests that individuals who excel at sharing experiences may possess less power than their partners, as the personal experiences they invest in can put them in a vulnerable position.

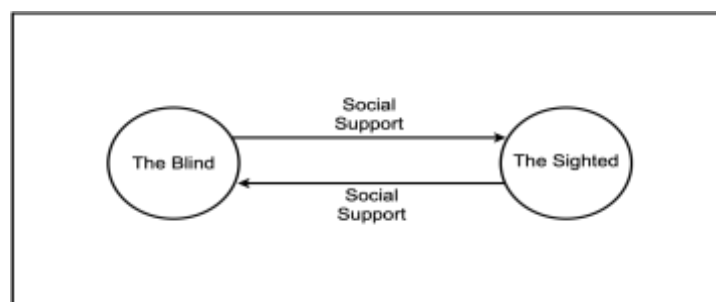


Figure 7. Transactional Model

Figure 7 illustrates the transactional mode of social support in friendships between blind and sighted individuals. Two solid arrows indicate the direction of social support exchange, representing a form of support that does not necessarily require equivalence. The presence of transactional social support implies that both parties tend to function independently, as the support is viewed primarily as an exchange, rather than as a fundamental aspect of friendship. As a result, the friendship becomes a transactional space—one that may dissolve once the perceived 'debt' of social support is fully repaid.

In this model, social support is not only treated as a transactional resource but also as a basis for evaluating relational balance. That is, both blind and sighted individuals assess the level of support they give and receive. According to equity theory, individuals may feel exploited when they perceive they are giving more than they receive, and conversely, they may feel guilt or shame when they receive more than they give (Hatfield & Rapson, 2012). This dynamic is particularly relevant in blind-sighted friendships, where blind individuals often require a significantly higher degree of instrumental support from their sighted counterparts (Nurjaman & Faturachman, 2018; Richardson, 2002). Thus, blind individuals may assume a greater role in maintaining the quality of the friendship, often by reciprocating the support they receive in different forms. This example clearly illustrates how social support operates as a transactional element within these relationships.

This research has several limitations that should be addressed in future research. First, the relatively small and homogeneous sample consisting exclusively of male students from a single inclusive university limits the generalizability of the findings to broader populations. Second, while the qualitative phenomenological approach offers rich, in-depth insights, it does not permit quantitative measurements that could enhance the validity and robustness of the results. Third, the study did not account for cultural variables or broader social contexts, both of which may play a significant role in shaping the patterns of interdependence explored.

Conclusion

The model of independent, dependent, and interdependent relationships in friendships between individuals who are blind and those who are sighted is manifested through joint activities, shared experiences, and social support. Activities conducted based on personal circumstances and motivations reflect independent relationships, while those grounded in friendship values illustrate interdependent relationship patterns. In the context of shared experiences, the nature of the experience influences the relationship dynamics; private experiences tend to foster stronger bonds, whereas general experiences are more likely to be independent of one another. Social support provided within the framework of friendship signifies interdependent relationships, while transactional support indicates independent relationships. This study confirms that the quality of cross-disability friendships is contingent upon the nature of the interactions and the underlying values of the relationships.

Statement of Interest

Both authors of the article declare that they have no conflict of interest in the publication of this article.

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