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The dynamics of goal congruency and cognitive busyness in goal detection

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Abstract

An experiment examined a theory explaining how people detect others' goals. The framework maintains that because components or factors (e.g., context, tactic) of interaction increase the accessibility of inferable goals, goal detection is a product of the goals these cognitive linkages activate. In dyadic initial interactions, one participant was randomly assigned as the pursuer and the other as the detector; detectors sought a goal varying in congruency (i.e., identical, concord, and discord) with pursuers' goal. Detectors' cognitive busyness was also manipulated. The level of efficiency at which pursuers sought their goal and the accuracy and certainty of detectors' inference of pursuers' goal were measured. Results generally confirmed hypotheses. Efficiency and accuracy were positively correlated only when (a) not-busy detectors' goal was concordant with pursuers' goal and (b) busy detectors' goal was discordant with pursuers' goal, whereas efficiency and certainty were positively correlated only for not-busy detectors. Other results dealt with how detectors' perspective taking promotes accuracy for inefficient goal pursuit and how accuracy yields favorable ratings of pursuers' communication competence when goal inferences are certain.

Keywords: interpersonal communication, conversation, social cognition, social interaction, message processing, message production, strategic communication, cognitive load.

Goal detection is codified in idiomatic phrases such as “a hidden agenda,” “open a can of worms,” “an axe to grind,” and “got your number.” These and other phrases suggest that goal detection is a fundamental aspect of communication in general and conversation in particular. Because human (Phillips, Baron-Cohen, & Rutter, 1992) and chimpanzee (Uller, 2004) infants infer others’ objectives, goal detection arguably has an evolutionary genesis (Bogdan, 1997). Goal inferences are likely a fundamental tendency of human nature, and their occurrence is sensitive to the socio-cognitive production and processing of messages (Berger, 2000; Palomares, 2008). In fact, much scholarship assumes that people detect or infer others’ goals (e.g., Carberry, 1990; Cohen, Morgan, & Pollack, 1990; Schank & Abelson, 1977; Schmidt, 1976). Moreover, goal detection is consequential: People use others’ goals to explain their behavior (Dillard, 1990; Poynor & Morris, 2003); and accurate detection at times can promote effective communication (Nauta & Sanders, 2001; Russell & Schober, 1999), comprehension, and recall (Lynch & van den Broek, 2007).

The current project advances and tests a theoretical framework for goal detection. In sum, the framework maintains that because components of interaction are cognitively associated with goals, they can increase the accessibility of potentially inferable goals and thereby shape goal inferences. Hence, goal detection is, in part, a product of the components in any given interaction and the goals they activate. This framework was applied to examine: (a) how goal congruency, cognitive busyness, and the efficiency of goal pursuit affect the accuracy and certainty of goal detection; (b) how and when detectors’ perspective taking promotes accurate goal detection; and (c) how detectors’ accuracy and certainty relate to their communication competence ratings of pursuers. In doing so, the following elaborates the theoretical framework. To test hypotheses deduced from the framework, an experiment next examines dyadic initial interactions wherein one member (i.e., pursuer) sought an obtain-personal-information goal unbeknownst to the other

member (i.e., detector) who was either cognitively busy or not and also sought a goal that varied in congruency with the pursuer's goal. Results are discussed theoretically and empirically.

Theoretical Framework

Goals are mental representations of desired end states (Berger, 2007; Dijksterhuis, Chartrand, & Aarts, 2007). People pursue a single primary goal (e.g., persuade, learn) that is central to and defines an interaction, as well as multiple secondary constraints (e.g., be polite) that guide behavior and recur across interactions (Dillard, Segrin, & Harden, 1989). Because primary goals are central to interaction, goal inferences emphasize primary goals rather than constraints (Palomares, 2008). Causal reasoning for others' behavior is unidimensional and less complex than explanations for one's own behavior (Fiske & Taylor, 2008). Trait inferences of others draw on unchanging reasons across situations more than unpredictable and dynamic reasons (Sande, Goethals, & Radloff, 1988). As a result, the theoretical framework assumes that goal detectors generally infer a single, primary goal rather than multiple goals and constraints.

Goal inferences vary in accuracy and certainty. *Inference accuracy* is the extent that a detector's inference is conceptually similar to a pursuer's true goal. Given a true goal of obtain personal information, for example, inferring a get-to-know-me goal is more accurate than a learn-my-background goal, and an inference of concealing information is inaccurate. Accuracy ranges from highly accurate to highly inaccurate. *Inference certainty* is a perception of the trust and confidence a detector has in the validity of an inferred goal based on accumulated goal-relevant data. When someone is uncertain about others or their messages, he/she will seek more information (Bradac, 2001; Hewes, 1995). Tentative goal inference surface when the amount of inference-relevant data is low (Craig, 1986; Palomares, 2008, 2009b; Tracy, 1991), whereas definitive inferences require ample diagnostic data. Even still, some inferences can occur outside awareness (Hassin, Aarts, & Ferguson, 2005) without an explicit certainty assessment, although

they can be brought into consciousness at times (Dik & Aarts, 2007; Kawada, Oettingen, Gollwitzer, & Bargh, 2004). Goal inferences can occur in anticipation of, anytime during, or subsequent to an interaction with different levels of accuracy and certainty.

Factor-Goal Linkages and Goal Inference Restrictions

Components or *factors* of social interaction are cognitively linked to goals (Palomares, 2008) and provide interpretability, structure, and meaning. Classes of factors include contexts, tactics, relational types, and other aspects of interaction. For example, an initial interaction is a context factor. Factors are objective elements of social reality that have mentally represented counterparts. Objectively, most interactions contain the same classes of factors (e.g., tactics), but specific instances of factors (e.g., self-disclosure) vary across conversations. Social actors, on the other hand, hold the basic classes of factors and can even have similar representations of specific factors, especially those from similar speech communities (Aarts & Dijksterhuis, 2000; Berger, 2007). The mental representation of a factor becomes cognitively linked to a goal by frequent and consistent coactivation (Bargh & Barndollar, 1996; Fitzsimons, Shah, Chartrand, & Bargh, 2005). Thus, if an objective factor triggers (implicitly or explicitly) its cognitive equivalent, then any associations among the factor and goals are also accessed: A *factor-goal linkage* is the cognitive association between a component of an interaction and a goal (Palomares). A factor-goal linkage, for example, exists between a restaurant and an order-food goal via a context-goal linkage (Schank & Abelson, 1977), whereas a tactic-goal linkage ties a promise to an enforce-obligation goal (Wilson, 1990). Restaurants, thus, activate (i.e., increase the accessibility of) ordering food and promises trigger enforcing an obligation. As a final example, a goal (e.g., obtain personal information) can be linked to another goal (e.g., conceal personal information) via a goal-goal linkage, or more specially in this instance a goal-goal obstacle linkage. The stronger the link between a factor and a goal is, the greater the goal's accessibility is.

Factors are diagnostic of the goals individuals pursue because they activate linked goals and people are more likely to pursue highly accessible goals than less accessible goals (Dik & Aarts, 2007; Dijksterhuis et al., 2007). Likewise, the more accessible a goal is, the more likely it will be inferred relative to less accessible goals (Hassin et al., 2005). Factors, thus, provide diagnosticity by restricting the range of inferable goals; that is, factor-goal linkages generate *goal inference restrictions* or limitations that influence what goal might be inferred (Palomares, 2008). The narrower the set of inferable goals is, the more likely a detector will infer a particular goal within that set. Two primary determinants impact the magnitude of goal inference restrictions. First, the strength of a factor-goal linkage influences the extent to which a factor constrains inferable goals. Because a mother-child relational type activated linked goals (e.g., succeed in school), that relational type led to inferences of a succeed-in-school goal more than a friendship did (Fitzsimons & Bargh, 2003). Second, the number of goals these linkages activate affects inference restrictions: Fewer activated goals yields greater (i.e., more narrow) restrictions. A factor that maximally restricted inferable goals to one goal led to inferences of that goal more than a less restrictive factor that was linked to that goal plus two others (Palomares).

The odds that a detector will infer the true goal increase as inference restrictions render the true goal more accessible than other goals. In other words, as the narrowing of inferable goals contract to include only the true goal, accuracy increases. For example, a tactic that made the true goal more accessible than other goals resulted in inferences of that goal more than a tactic not strongly linked to the true goal or a tactic strongly linked to the true goal and other goals (Palomares, 2008). However, because most conversations include many factors, the inference restriction process of a detector can entail the integration of diagnostic data from multiple factors. Primarily integrated classes of factors typically include the context and pursuers' tactics because they are particularly germane. During the restriction process, thus, factor-goal linkages

from the context, tactics, or any other relevant sources of diagnosticity are integrated, whereby goals mutually linked to more than one factor gain accessibility over goals linked to fewer factors, which further restricts the set of inferable goals. For example, when confronted with a tactic strongly linked to three goals and a context strongly linked to only one of the three goals, detectors inferred the mutually linked goal more than the other two goals (Palomares). Accuracy increases as multiple factors mutually generate inference restrictions that focus on the true goal.

The Integration Principle

Linkages from all potential sources of factors, however, are not always fully integrated during the inference restriction process. According to the theoretical framework, the extent that linkages from any given class of factors are incorporated depends on its diagnostic utility relative to other classes of factors. If one factor alone can adequately restrict inferable goals to the true goal, then other factors are less useful and not completely integrated. Tests have confirmed this *integration principle* using tactic and context factors as sources of diagnosticity (Palomares, 2009a, 2009b). For example, because an initial interaction is strongly linked to an obtain-personal-information goal but not an obtain-reasons-for-political-affiliation goal, it restricts potential inferences to the former but not the latter goal. Thus, when the true goal was to obtain personal information in an initial interaction, the context had more utility than the tactics, thereby reducing the integration of tactics. On the other hand, when the true goal was to obtain reasons, the integration of tactics occurred given their utility relative to the context because the context inadequately restricted inferences to the true goal (Palomares, 2009a). Applying the integration principle to context and tactic factors means that tactics are incorporated into the inference restriction process *only* if the context does not already produce adequately narrow restrictions.

The diagnostic utility of tactics resides in their efficiency. Efficient goal pursuit is expedient, effortless, and persistent; it results in a rapid succession of direct tactics (Kellermann

& Shea, 1996). Efficiency is different than effectiveness or the success of achieving a goal (Kellermann, 2004; Wilson, 2002). For example, hints can be effective for gaining compliance because they lead to goal apprehension; but a hint is relatively inefficient, as it beats around the bush and is wasteful (Kim & Wilson, 1994). Efficiency reifies the link between a pursuer's true goal and tactic factors (Palomares, 2009a). Escalations in efficiency generate tactic-goal linkages that increasingly restrict inferable goals to the true goal, which increases the likelihood a detector will accurately infer that goal. Based on the integration principle however, this efficiency-accuracy outcome emerges only if the context does not already adequately restrict inferable goals to the true goal. For example, if the pursuer in an initial interaction sought a goal (e.g., convince to vote) weakly linked to the context, then the pursuer's efficiency increased the detector's accuracy; though, if the pursuer sought a goal (e.g., avoid awkwardness) strongly linked to the context, then efficiency was unrelated to accuracy (Palomares, 2009b).

Whereas the goal detection theoretical framework suggests that goal congruency and cognitive busyness moderate the processes involved in the integration principle, the framework in and of itself does not directly address how these processes would specifically manifest. Hence, the following synthesizes the framework with relevant domains of other research to explain how congruency and busyness alter the integration processes of goal detection.

Goal Congruency

With diverse operationalizations, the integration principle has been replicated multiple times focusing on tactic (via efficiency) and context factors (Palomares, 2008, 2009a, 2009b); yet, other factors of social interaction can be diagnostic, such as a detector's own goal, because the goal one pursues can affect the goal he/she thinks someone else is pursuing. Detectors' goal can shape their goal inferences in at least two ways. First, people can project their mental states onto others (Ames, 2004), just as they project their goals onto others (Kawada et al., 2004). Goal

projection occurs when a detector's pursuit of a goal causes that goal to be more accessible than other goals activated by the inference restriction process; if one's goal trumps the accessibility of any other goals, then a detector can infer (i.e., project) that goal. Second, a detector's goal can increase the accessibility of another goal that is linked to the initial goal, thereby leading the detector to infer the linked goal. The current research assessed the role that a detector's own goal plays in goal detection: Specifically, the relationship between a detector's goal and a pursuer's goal was examined to determine how the goals' congruency might interact with the incorporation of the context and tactic factors a la the integration principle.

Although the relationship between interactants' goals can vary in many ways (Wilensky, 1983), *goal congruency* is the extent of agreement or correspondence between cointerlocutors' goals. By holding the pursuer's goal constant (i.e., obtain personal information) and altering the detector's goal, three levels of congruency emerge: (a) *identical goals* or when the pursuer and detector both have the same information-seeking goal; (b) *goal concord* or when the detector's goal of reveal personal information complements the pursuer's goal; and (c) *goal discord* or when the detector's goal is to conceal personal information such that for either the detector or the pursuer to succeed the other must fail. Because the pursuer's goal of obtain personal information is frequent in initial interactions (cf. Berger & Kellermann, 1994), the context is strongly linked to the pursuer's true goal. According to the integration principle, the full incorporation of tactics into the inference restriction process should not occur because the context will restrict potential inferences to the true goal; but, this logic assumes the detector's own goal plays no role in the process. Goal congruency can moderate the extent that tactics are integrated into the restriction process; in some circumstances tactics can become useful and therefore integrated.

For identical goals, two sources generally cause detectors to have a single goal highly accessible in their goal inference restrictions: (a) The initial-interaction context's strong

association with the obtain-information goal (Berger & Kellermann, 1994) triggers the pursuer's true goal, and (b) the detector's pursuit of the same goal also fosters high accessibility for that goal. Hence, inference restrictions will maximally restrict inferable goals to the true goal, which increases the odds that the detector will infer the pursuer's goal accurately. Consistent with the integration principle, the inference restriction process renders any diagnosticity from tactics somewhat superfluous and thereby reduces the extent to which tactic-goal linkages are integrated into the restriction process. Efficiency, thus, will have no impact on accuracy for identical goals.

This process is different when goals are not identical. For goal concord, the detector's goal inference restrictions will have two distinct, yet congruent, goals highly accessible: The initial-interaction context still activates the pursuer's true information-seeking goal, while the detector's own goal produces high accessibility for the reveal goal. Based on the integration principle, two highly accessible goals will render the diagnosticity of tactics useful and therefore encourage the incorporation of tactic-goal linkages into the inference restriction process. As the pursuer's efficiency increases, the tactic factors will become increasingly compatible with the context factor (linked to the true goal), which will restrict inferable goals to the true goal and eventually trump the detector's own goal as a likely inference. If efficiency remains low however, then the detector will be less likely to infer the true goal. Efficiency, thus, will increase accuracy for concordant goals (i.e., a positive efficiency-accuracy correlation is expected).

Goal discord is similar to concord but only to the extent that inference restrictions contain two potentially inferable goals. As with identical and concordant goals, the context activates the pursuer's true information-seeking goal; but the detector's own goal increases the accessibility of the conceal goal. Unlike goal concord, however, discordant goals are incongruent: For the detector to conceal, the pursuer cannot obtain the information-seeking goal (and vice versa). People heed goal obstacles because not doing so puts the achievement of their own goal in

jeopardy (Berger, 2000; Francik & Clark, 1985). Discordant goals, thus, cause the pursuer's information-seeking goal to be highly relevant for detectors' ability to achieve their own goal. In fact, because goals and their obstacles are cognitively linked (Gibbs, 1986), the detector's conceal goal will activate the pursuer's find-information goal. As a result, detectors do not focus on the diagnosticity of tactics to integrate tactic-goal linkages into the inference restriction process whereby one of the discordant goals would have trumped the other. Rather, detectors will tend to infer the goal obstacle regardless of the pursuer's efficiency given the obstacle's threat to their own goal's success. Thus, efficiency will be unrelated to accuracy for goal discord.

A point about goal concord and discord is worth elaboration. Because goal-goal linkages can elevate the accessibility of a goal during the integration process, an inference can be based primarily on a goal-goal linkage. For goal discord, detectors' conceal goal is linked to pursuers' true goal (i.e., obtain information obstacle). For goal concord, a link exists between detectors' reveal goal and pursuers' true goal of obtain information. Specific to goal discord, because of its threat, the pursuer's true goal obstacle will trump other accessible goals; hence, detectors will infer the obstacle without integrating tactic factors. Yet for goal concord, because the pursuer's true goal does not threaten detectors' goal, detectors will still integrate tactic factors; that is, detectors will not abandon the integration of tactics to infer pursuers' true goal. Because goal obstacles are more significant and memorable than goal-compatible information (Bower, Black & Turner, 1979), the discordant goal obstacle will be the most accessible goal avoiding the need to integrate tactics, whereas the concordant goal will not be the most accessible encouraging the need to integrate tactics.

Cognitive Busyness

The three outcomes predicted above, however, assume sufficient cognitive resources available to detectors. *Cognitive busyness* is a mental state wherein one is under a relatively

demanding or taxing psychological load (Gilbert, Pelham, & Krull, 1988). Busyness can alter the processing of a variety of social data. For example, stereotype activation and application (Gilbert & Hixon, 1991), behavior identification (Chun, Spiegel, & Kruglanski, 2002), self-presentation (Pontari & Schlenker, 2000), and impression formation (Gilbert & Osborne, 1989; Monahan, 1995) are subject to the influence of limited cognitive resources. Busyness also shapes communication, such as speech production (Cralley & Ruscher, 2005), conversation planning (Knowlton & Berger, 1997), reading informational websites (Eveland & Dunwoody, 2001), and evaluating others during conversation (Monahan & Laliker, 2002). Goal detection is likely no different. Thus, busy and not-busy conditions tested if detectors' limited cognitive resources would alter the previous predictions for the identical, concordant, and discordant conditions.

When a detector has limited cognitive resources, the inference restriction process can change (albeit contingent on goal congruency). Busyness alters the way in which the integration principle applies to the context, tactic, and goal factors. Person-perception research shows that busyness induces a significant cognitive burden so much so that someone integrating two distinct potential sources of explanation into a trait inference prioritizes one over the other: "Cognitive load makes it difficult for perceivers to fully integrate multiple explanations (dispositional and situational) of the actor's behavior. As a result, one explanation is heavily weighted in perceivers' judgment, whereas other explanations are underweighted" (Trope & Gaunt, 2000, p. 352). Salience determines which explanation is prioritized because busy or "distracted perceivers are likely to overweight the salient explanation and underweight all other, less salient explanations" (p. 346). Because multiple distinct goals are highly accessible, this trait-inference model has implications for the concord and discord conditions by driving busy detectors to prioritize one set of factors in the inference restriction process; by doing so, detectors can restrict potential inferences to an adequately narrow level. On the other hand, this trait-inference model

has no implications for the identical condition because only one goal is highly accessible and inferences do not need further restricting; integrating multiple sources is not necessary, in other words. The following elaborates this rationale within the three congruency conditions.

The earlier prediction for identical goals holds in the busy condition. A cognitive load does not alter the absence of a significant efficiency-accuracy correlation because the pursuer's true goal remains solely, highly accessible as a part of detectors' inference restrictions despite their busyness. That is, busyness does not interfere with the inference restriction process. The pursuer's true goal maintains a high level of accessibility for the detector because the context and the detector's own goal trigger that goal. In line with the integration principle, because inferable goals are still maximally restricted to the true goal, the detector does not incorporate tactics into the inference restriction process. Thus, busy detectors do not have to prioritize either context or tactic factors, as the trait-inference model might suggest. Rather, the detector will infer the pursuer's goal accurately given its high accessibility regardless of tactics and their efficiency. Efficiency, thus, does not affect accuracy for either busyness condition when goals are identical.

On the other hand, the previous predictions for goal concord and discord occur only if the detector is *not* cognitively busy. Because concordant and discordant goals make two distinct goals highly accessible, inferable goals are not maximally restricted to the true goal. As a result, the detector cannot infer a single highly accessible goal. Because inference restrictions contain more than one potentially inferable goal, the diagnosticity of tactics might become useful. Yet, the trait-inference model (Trope & Gaunt, 2000) is applicable in these two instances because busyness interferes with one's ability to integrate multiple sources of diagnosticity: When a detector is cognitively busy, either the context or tactic factors will trump the other factor as the primary source of diagnosticity for inferring a goal. Which source is prioritized depends on their relative salience or importance; the more salient or meaningful source will trump the other

source when mental load is high. For goal concord, because the pursuer's goal is not particularly relevant for the detector's own goal achievement, a busy detector perceives the context factor as more salient than tactic factors given the context's prominence to the interaction at hand; thus, because the context is prioritized over tactics, tactic-goal linkages are not integrated into the inference restriction process causing efficiency to be unrelated to accuracy. A positive efficiency-accuracy correlation for goal concord will emerge only if the detector is not busy. For goal discord, however, because the pursuer's goal obstacle is especially germane to the detector's own goal achievement, a busy detector perceives tactic factors as more salient than the context factor given the tactics' ability to expose the presence of the obstacle. Thus, for goal discord, because tactics are prioritized over the context, tactic-goal linkages are integrated into the inference restriction process only when detectors are busy, which will thereby yield an efficiency-accuracy correlation positive and significant. In sum, the obstacle in the discord condition yields tactics as the most salient factor; whereas the lack of an obstacle in the concord condition does not move salience away from the context, leaving the context as the most salient.

The following hypotheses summarize all of the predictions for inference accuracy:

- H_{1a-c}: When detectors are not cognitively busy, pursuers' efficiency is positively correlated with detectors' accuracy (a) if detectors' goal is concordant with pursuers' goal but not if it is (b) identical to or (c) discordant with pursuers' goal.
- H_{2a-c}: When detectors are cognitively busy, pursuers' efficiency is positively correlated with detectors' accuracy (a) if detectors' goal is discordant with pursuers' goal but not if it is (b) identical to or (c) concordant with pursuers' goal.

Detectors' cognitive busyness also affects their inference certainty. As previously stated, certainty is a data-based judgment of the confidence of an inferred goal. Certainty increases as inference-consistent data accumulates, whereas the narrowing of inference restrictions does not

increase certainty (as it does for accuracy). For example, certainty did not change across different levels of inference restrictions; rather, certainty was greater in unambiguous than ambiguous contexts because of a marked reduction of useful information in ambiguous contexts (Palomares, 2008). Thus, efficiency directly impacts inference certainty by providing goal-consistent data. This effect assumes, however, that detectors have ample cognitive resources. Efficiency, in other words, will be positively correlated with certainty only if the detector is not cognitively busy because busy detectors are unable to fully draw on the data from efficient tactics. Thus:

H_{3a-b}: Pursuers' efficiency is positively correlated with detectors' certainty (a) if detectors are not cognitively busy (b) but not if detectors are cognitively busy.

A counter argument is that if detectors use tactics (via efficiency) to judge certainty regardless of goal congruency when their cognitive resources are not hindered, then the same should be true for accuracy. In other words, the above predictions for certainty excluding congruency should also apply to accuracy. This alternative rationale is rebuffed, however, because a detector's certainty judgment is contingent on the detector having already inferred a goal. Because certainty is an assessment of the accuracy of an inferred goal, detectors must infer a goal before they can consider certainty. Congruency affects accuracy because it alters the accessibility of goals and thereby influences the inference restriction process, whereas congruency does not affect certainty because goal accessibility is irrelevant to certainty. Hence, the certainty process is independent from the accuracy process, which allows for unique predictions.

Perspective Taking

Perspective taking occurs when one approaches an interaction from another's viewpoint (Galinsky, Ku, & Wang, 2005). Detectors' perspective taking can impact goal detection because it enhances the transference of meaning and intention (Davis, 2005). Interpreting an utterance, for example, depends on one's perspective (Keysar, 1994). Perspective taking creates overlap in

peoples' mental representations (Davis, Conklin, Smith, & Luce, 1996; Galinsky & Moskowitz, 2000): Observers encoded an actor's goal more closely to the actor's encoding when taking the actor's point of view than when they did not (Lozano, Hard, & Tversky, 2006). Given increased mental overlap, perspective taking in detectors can facilitate the inference restriction process by increasing the likelihood that inferable goals focus on the pursuer's true goal. Thus, perspective taking can increase accuracy; this increase, however, is contingent on pursuers' efficiency (Palomares, 2009a, Experiment 1). The extent that perspective taking facilitates an accurate interpretation of a message depends on the message's directness because perspective is trivial for literal meanings that can be taken at face value (Gibbs, 1994; Holtgraves, 2005). At dinner, for example, when someone asks for the pepper, the interpretations of the speaker, recipient, and any overhearers should be deemed straightforwardly as a request. When messages are ambiguous, perspective can assist interpretation. Detectors' perspective taking promotes accuracy for inefficient goal pursuit because it is beneficial only if the interpretation is unclear. In the words of the theoretical framework, if tactics inadequately restrict inferable goals to the true goal, then detectors' perspective taking can encourage accuracy (Palomares):

H₄: Detectors' perspective taking is positively correlated with detectors' accuracy, but the magnitude of this correlation is greatest as pursuers' efficiency decreases.

Communication Competence

Whereas the rationale hitherto has focused on the antecedents for goal detection, it also includes consequences, such as perceived *communication competence* or the behaviorally-based impression of another's communicative aptitude (Wilson & Sabee, 2003). Accurate inferences provide a framework for people to interpret (Taylor & Crocker, 1981) and respond to (Langer & Abelson, 1974) another's behavior. Accuracy fosters effective and efficient interactions (Berger, 2000, 2003). For example, people who were unable to adjust their beliefs about their partner's

goals misunderstood and negatively judged their partner more than those with accurate goal beliefs (Russell & Schober, 1999). Thus, as detectors accurately infer pursuers' goal, they will deem the pursuer more communicatively competent because accuracy is conducive to understanding and assessing others in positive ways. Indeed, inference accuracy was positively correlated with detectors' competence ratings of pursuers (Palomares, 2009a, Experiment 1).

Although this correlation is generally expected, detector's certainty likely moderates it. A boost from accuracy on judgments of competence assumes a relatively high level of inference certainty. Detectors are unlikely to use an inference if it is uncertain because other plausible causes relevant for a competence judgment can be used also or instead, whereas they can rely on an inference to a greater extent if it is certain. In a parallel vein, certainty for one appraisal led to a subsequent judgment consistent with the first appraisal because perceivers used the initial high-certainty appraisal for the judgment; but they used other sources if it was uncertain (Tiedens & Linton, 2001). Likewise, people were more likely to project their own attitude onto another when they were highly certain about the accuracy of their opinion because the high level of certainty ruled out rival attitudes (Marks & Miller, 1985). Inference certainty prompts detectors to use a relatively simple or heuristic means of assessing competence that an accurate goal inference provides. Without a trustworthy goal inference, in other words, detectors cannot use it in the calculation of a pursuer's competence. Thus:

H₅: Detectors' accuracy is positively correlated with detectors' competence judgment of pursuers, but the magnitude of this correlation is greatest as detectors' certainty increases.

Method

Participants and Design

Undergraduate students ($N = 304$; 73% female; age: 18 to 29 years, $M = 19.23$, $SD =$

1.67) of a West Coast university participated to receive course credit. Participants formed 152 dyads wherein one was randomly assigned to be the pursuer and the other was the detector.

Goal Congruency

Pursuers always sought the same information-seeking goal of “Find out as much as you can about your partner,” whereas detectors sought one of three goals varying in congruency with the pursuer’s goal: (a) “Find out as much as you can about your partner,” (b) “Reveal as much as you can about yourself”, and (c) “Reveal as little as you can about yourself.” The three goals for detectors corresponded to the identical, concord, and discord goal-congruency conditions, respectively. Both dyad members were unaware that the other had a goal.

Cognitive Busyness

Consistent with past research that manipulated busyness (e.g., Chun & Kruglanski, 2006; Gilbert & Hixon, 1991), busy participants silently rehearsed nine digits (854917632) that they recalled after the interaction. Participants were given 30 seconds to view the number. Not-busy detectors (i.e., low cognitive load) did not receive these instructions nor view the number.

Rehearsing digits is a valid and well-tested method to manipulated cognitive load. People who rehearsed digits were slower in a reaction-time study than non-rehearsing counterparts (Osborne & Gilbert, 1992). Perceivers rehearsing digits during a conversation felt more distracted than those not rehearsing (Chun et al., 2002; Dudley & Harris, 2003; Harris & Perkins, 1995).

Inference Accuracy

The assessment of accuracy was threefold. First, in an open-ended item detectors read that a goal is an objective or purpose that people try to achieve when talking with someone else and then listed any goal(s) they thought their partner was trying to do while talking with them. Second, detectors isolated one goal from the initial list as the principal goal they thought their partner was trying to achieve foremost. Third, two independent coders read detectors’ responses

to both items and coded the second item on a four-point scale (4 = *high*). Accuracy was defined as the extent to which the detector's inference conceptually matched the pursuer's true goal.

Coders compared the underlying meaning or gist of the inferred and true goals (not syntactic or lexical similarities) and were reliable (Krippendorff's $\alpha = .93$; $M = 3.21$; $SD = 1.24$).

Inference Certainty

On a seven-point scale (7 = *high*), four items (one reverse coded) measured certainty by assessing if detectors (a) were confident, (b) had reservations, (c) were certain, and (d) had trust in the inference they deemed as the pursuer's principle goal. When averaged, the items formed a reliable scale ($\alpha = .94$; $M = 4.80$; $SD = 1.39$).

Perspective Taking

Seven items (two reverse coded) of the perspective-taking subscale of the interpersonal reactivity inventory (Davis, 1980) measured detectors' general tendency to (a) put themselves in others' shoes, (b) understand people better by picturing how things look from their perspective, (c) look at everyone's side of a disagreement, (d) have difficulty taking another's point of view, (e) imagine how they would feel in someone else's place, (f) not waste time listening to others' arguments, and (g) believe that there are two sides to every question they consider. The scale's correlation with person-perception accuracy suggests it is a valid measure (Bernstein & Davis, 1982). The mean of the seven items formed a reliable scale ($\alpha = .72$; $M = 5.07$; $SD = .92$).

Communication Competence

Twenty-seven items (eight reverse coded) of the rating of alter competence scale (Spitzberg 1988) assessed detectors' perception of pursuers' communication competence. The average of the items was a reliable measure ($\alpha = .94$; $M = 5.33$; $SD = .83$).

Manipulation and Design Measures

Several checks were implemented to secure effective tests of the hypotheses. Participants

stated their assigned goal in an open-ended goal-recall item and indicated if they knew their partner before their involvement in the study via a partner-recognition item. In a demand-characteristics item, participants wrote what they thought the researcher was trying to learn from the experiment. Busy detectors recalled the nine-digit number to ensure compliance with the cognitive busyness manipulation. Details regarding the specific use of these safeguards are in the manipulation-check subsection of the results.

Procedure

Two participants arrived outside a lab where a research assistant greeted them. Next, one participant was randomly assigned as the detector who was separated from the pursuer by bringing him/her into the lab. Both the pursuer and detector read a set of instructions: “For this research study, you will talk with someone whom you have never met before. Throughout this study, we will refer to this person as your conversation partner or as your partner. In a few moments, you will meet and have a conversation with your partner. After talking with your partner, you will complete a questionnaire.” Participants then read that during the conversation they need “to try to do something.” Specifically, “we want you to have a certain objective or purpose for talking with your partner,” and “you should try to achieve the following goal.” At this point, pursuers always read the obtain-personal information goal, whereas detectors read one of the three randomly assigned goals. A goal was listed verbatim as it appears in the congruency section above. Participants next read that “you should attempt to reach the above goal by the end of the conversation,” “you can pursue your goal using whichever means or methods you would like to employ,” but “avoid outright telling your partner what your goal is.” The instructions elaborated this last point by adding that they should not “state your goal to your partner” but “focus on” their specific goal, the full description of which was repeated. The directions stated that conversations will be videotaped and finally reminded participants of their goal a third time.

Next, participants summarized their instructions to the assistant. Once participants accurately restated the instructions and their assigned goal, detectors in the randomly assigned busy condition learned that the research also examined how people perform two dissimilar tasks at the same time. Busy detectors were informed that they will silently rehearse and remember a number while participating in the study and then viewed the number for 30 seconds. Next, the assistant escorted the pursuer into the lab and asked him/her to sit in a chair facing the detector at a 90° angle. Detectors sat to the pursuer's left. The assistant then said to start the conversation once the assistant left the room. Next, the assistant started the camera, left the lab, closed the door, and started a timer. After five minutes, the assistant reentered the lab, stopped the camera, escorted participants to separate rooms, and asked each to complete a questionnaire.

Pursuers' questionnaire first had them recall their assigned goal. Next, pursuers completed other (currently irrelevant) items and then the demand-characteristics, partner-recognition, sex, and age items. Detectors first completed the accuracy items followed by the certainty scale that was intermixed with other items. Busy detectors then wrote the number they were supposed to rehearse. All detectors then recalled their assigned goal and then completed the communication-competence and perspective-taking items mixed with extra items. Finally, detectors answered the demand-characteristics and partner-recognition items and indicated their sex and age. After participants completed their questionnaire, the assistant debriefed and thanked them. The entire procedure lasted approximately 30-40 minutes.

Coding of Goal Pursuit Efficiency

Three judges watched the videotaped recordings of the interactions to rate each pursuer's level of efficiency. The operationalization of high efficiency was expedient, immediate, to the point, not wasteful, direct, and effortless goal pursuit. Judges maintained the general principle that efficiency increased as the style and content of a pursuer's tactics were highly conducive to

his/her goal. For example, pursuers very efficiently sought their goal by frequently asking personal, broad, direct, and open-ended questions without squandering time or effort. On the other hand, pursuers who occasionally asked general or relatively impersonal questions, rarely asked broad and personal questions, revealed some personal information, and answered questions (infrequently followed by “How about you?”) received a low efficiency score. For training, judges read descriptions and examples of tactics that varied in efficiency for the pursuers’ goal and watched videotaped exemplars of (in)efficient pursuits of the goal from past research. Judges also learned how efficiency, effectiveness, and appropriateness were distinct so as to disregard the latter two while rating efficiency.

Judges considered moderately explicit tactics (e.g., “Tell me about yourself,” “What do you like to do, what’s your major, where are you from? Tell me.”) when rating the efficiency of pursuers’ information-seeking goal. As such, a pursuer who frequently used many moderately explicit tactics received a higher efficiency score than a pursuer who used just one or none of these tactics. Judges also paid attention to any highly explicit tactics (i.e., “I want to learn as much as possible about you,” “The researcher told me to get to know you,” “I’m trying to get information about you”); pursuers did not use these tactics. Highly explicit tactics would have threatened the experimental protocol, but moderately explicit tactics were non-jeopardizing because they are efficient means of goal achievement that do not definitively reveal one’s goal. Whereas efficiency took into account moderately explicit tactics, it is not identical to explicitness because efficiency comprises other aspects of goal pursuit (see preceding paragraph).

Judges knew pursuers’ true goal, focused on pursuers’ communicative behaviors (i.e., tactics), and excluded detectors’ behavior in the ratings. On a seven-point scale ($7 = high$), judges indicated each pursuer’s global level of efficiency for the entire five-minute interaction. To facilitate global ratings, judges first rated efficiency for each 1-minute increment and then

made the global judgment in light of these ratings. The three judges' global ratings were reliable (intraclass correlation: $\rho_I = .80$), and their average defined efficiency ($M = 3.31$; $SD = .75$).

Results

Because the data were analyzed at the dyadic level, each unit of analysis included all variables with one datum for each central measure (i.e., efficiency, accuracy, certainty, perspective taking, and competence) for any given dyad.

Manipulation Checks

To ensure an effective congruency manipulation, participants' responses to the goal-recall item needed to be conceptually similar to the assigned goal but not verbatim. Seven dyads (or 4.61%) who had at least one member erroneously state the goal were removed. To include only initial interactions, four dyads (or 2.63%) were deleted because the dyad had previously met and talked, as the partner-recognition item indicated. No dyads were dropped based on the demand-characteristics item. An a priori criterion that busy detectors must recall four or more digits in the correct order resulted in the deletion of 13 dyads (8.55%) because this indicated they were not rehearsing the number, as per past research employing the same manipulation (Chun & Kruglanski, 2006; Gilbert & Hixon, 1991). Last, videotapes, questionnaires, and debriefings indicated that all participants took the study seriously and did not violate the protocol or reveal their goal. All remaining 128 dyads passed the manipulation checks and adhered to the design.

Hypotheses Tests

Hierarchical moderated regressions using a simple-slope strategy for testing interactions between continuous and categorical independent variables (Aiken & West, 1991; West, Aiken, & Krull, 1996) produced the same conclusions as the subsequent general linear models (GLMs) did. Only the GLMs appear below for H₁-H₅ because they are relatively more straightforward.

Inference accuracy. The GLM regarding accuracy (H₁₋₂) used the goal-congruency and

busyness factors, plus the continuous independent variable of efficiency and a complete set of interaction terms. This 3 by 2 by continuous design yielded an efficiency main effect, $F(1,116) = 6.92, p = .01, \eta_p^2 = .06$: Efficiency was positively correlated with accuracy, $r = .24, p = .007$. A busyness by congruency interaction also emerged, $F(2,116) = 5.03, p = .008, \eta_p^2 = .08$. The predicted three-way interaction among congruency, busyness, and efficiency, however, subsumed the lower-order effects, $F(2,116) = 5.22, p = .007, \eta_p^2 = .08$. All other main and interaction effects did not breach the significance threshold ($F_s < .78$). Specific tests of H_{1-2} examined the correlations (one-tailed when suitable) between efficiency and accuracy within the six congruency-by-busyness conditions. Figure 1 illustrates the accuracy findings.

When detectors were not busy, efficiency and accuracy were positively correlated for the concord condition (H_{1a}), $r = .46$, one-tailed $p = .012$; similar correlations were not significant for the identical (H_{1b}), $r = .17, p = .41$, or discord (H_{1c}), $r = .02, p = .92$, conditions. However, the concord coefficient was not significantly different than the identical coefficient, $z = -1.09$, one-tailed $p = .14$, and the concord coefficient only approached significance when compared to the discord coefficient, $z = 1.51$, one-tailed $p = .066$. The identical and discord coefficients were not significantly different as expected, $z = .48, p = .63$. H_1 generally received support.

For the busyness condition, efficiency correlated with accuracy for goal discord (H_{2a}), $r = .66$, one-tailed $p < .001$; whereas efficiency-accuracy correlations were not significant for the identical (H_{2b}), $r = .21, p = .36$, or concord (H_{2c}), $r = -.21, p = .47$, conditions. Also as expected, the discord coefficient was significantly greater than either the identical, $z = -1.76$, one-tailed $p = .04$, or the concord, $z = -2.61$, one-tailed $p = .004$, coefficients; and the identical and concord coefficients were not different, $z = 1.11, p = .27$. H_2 obtained full support.

Inference certainty. A similar GLM tested H_3 regarding certainty. The efficiency main effect was significant, $F(1,116) = 6.76, p = .011, \eta_p^2 = .06$, as was the efficiency-certainty

correlation, $r = .23$, $p = .009$. The anticipated efficiency by busyness interaction, however, approached the significance level, $F(1,116) = 3.54$, $p = .063$, $\eta_p^2 = .03$. All other effects were not significant ($F_s < 2.12$). Given the omnibus test's inability to test H_3 , efficiency-certainty correlations within the two busyness conditions were tested (one-tailed if appropriate). The correlation was significant for the not-busy condition (H_{3a}), $r = .39$, one-tailed $p < .001$, but not for the busy condition (H_{3b}), $r = .05$, $p = .73$. The two coefficients were significantly different, $z = 1.98$, one-tailed $p = .02$. H_3 was supported. Figure 2 summarizes these data.

Detectors' perspective taking. A GLM tested H_4 using the continuous variables of efficiency and perspective taking and their interaction term. Accuracy was the dependent variable. The anticipated interaction emerged, $F(1,124) = 9.76$, $p = .002$, $\eta_p^2 = .07$. Accuracy-perspective-taking correlations (one-tailed when appropriate) were examined for low, moderate, and high levels of efficiency by trichotomizing efficiency: Efficiency scores more than half a standard deviation from the mean were high, scores less than half a standard deviation from the mean were low, and scores within half a standard deviation from the mean were moderate. The correlation for low efficiency was significant, $r = .46$, one-tailed $p = .005$, but correlations for moderate, $r = -.06$, $p = .64$, and high, $r = -.07$, $p = .72$, levels were not. Also, the low-efficiency coefficient was greater than either of the other two coefficients, both $z_s > 2.11$, one-tailed $p < .017$; whereas the moderate- and high-efficiency coefficients were not different, $z = .03$, $p = .97$. Figure 3 plots these correlations, which supported H_4 . As an aside, detector's goal did not moderate this effect.

Pursuers' competence. Once more, a GLM tested H_5 regarding an interaction between detectors' accuracy and certainty for detectors' ratings of pursuers' competence. The anticipated interaction was significant, $F(1,126) = 12.74$, $p < .001$, $\eta_p^2 = .09$. A trichotomy procedure identical to that of the perspective-taking analysis used the mean and half a standard deviation of

certainty to yield low, moderate, and high levels. The accuracy-competence correlation for high certainty was significant, $r = .43$, $p = .004$; but correlations for moderate, $r = .08$, $p = .57$, and low, $r = .27$, $p = .14$, levels of certainty were not. The high-certainty coefficient was greater than the moderate-certainty coefficient, $z = 1.77$, one-tailed $p = .038$, but not the low-certainty coefficient, $z = .74$, one-tailed $p = .23$; and the moderate and low coefficients were not different, $z = .83$, $p = .40$. H_5 generally obtained support, as illustrated in Figure 4. Again, detector's goal was not an effective moderator of this effect.

Discussion

The experiment revealed several implications for theory and future research on goal detection and was also somewhat limited by a few method concerns.

Theoretical Issues

Inference accuracy. Results for accuracy were generally consistent with the hypotheses whose explanation is rooted in a synthesis of the integration principle with other related research. Specifically, goal congruency and cognitive busyness altered the extent to which the diagnosticity from tactics (via efficiency) was incorporated into the inference restriction process. When the context and the detector's own goal mutually activated the pursuer's true goal, tactic factors were not integrated into the restriction process regardless of the detector's level of busyness. As a result, efficiency did not increase accuracy for identical goals across the busyness conditions. If inference restrictions had two highly accessible goals due to goal concord, then the tactic factors were useful and thus integrated, but only if detectors had ample cognitive resources. Thus, efficiency increased accuracy for goal concord if the detector was not busy. Likewise, a detector whose inference restrictions focused on two goals (this time due to goal discord) deemed the tactic factors useful and thus integrated them, assuming the detector was cognitively busy. As a result, efficiency increased accuracy for discord, but only if the detector

was busy. Overall for goal concord and discord, detectors integrated either the context or tactic factors depending on their relative salience when push came to shove due to taxed cognitive resources; whether the context or tactic factors were prioritized depended on if the pursuer's goal was an obstacle for the detector.

These results provide a new take on the integration principle, which hitherto focused exclusively on the interplay between the context and tactics by stating that tactics are integrated only if the context does not already adequately restrict inferable goals to the true goal. This new development suggests that the integration principle is susceptible to interference in two ways. First, a detector's own goal can intervene by providing a third source of diagnosticity for the integration process beyond the context and tactics. That is, what potentially inferable goals become accessible for a detector (via inference restrictions) can emerge not only from the context of the interaction and the pursuer's communicative behavior but also from an internal source of the detector's goal. This possibility is consistent with past research that found goal detection to be a product of detectors' personal dispositions if the context and tactic did not provide adequate diagnosticity; namely, when a context was strongly linked to one goal and a tactic was strongly linked to a different goal, detectors inferred one of the two goals using their own idiosyncratic tendencies which resulted in inferences split (i.e., approximately 50-50) across the two goals (Palomares, 2008). Although the idea of idiosyncrasies was useful to predict this 50-50 outcome, it was poorly specified and somewhat elusive. The current study gives a possible manifestation of idiosyncratic sources that is relatively more concrete and less amorphous (i.e., detectors' goal). Future research might explore other ways in which a detector's goal impacts goal detection. Whereas one prospect is goal projection, other opportunities likely exist too.

The cognitive busyness of detectors is the second way in which the integration principle is susceptible to interference. As originally theorized, the integration principle assumed ample

cognitive resources for detectors: If one factor alone provides adequately narrow inference restrictions, then other factors are less useful and not completely integrated. Applied to context and tactic factors, the integration principle asserts that tactics are incorporated into the inference restriction process *only* if the context does not already restrict inferable goals to the true goal. A caveat, however, is warranted regarding busyness, such that tactic factors can be integrated even if the context adequately restricts inferable goals when the detector does not have the cognitive means to draw on both the context and tactics. Cognitive busyness, in other words, can alter which factor is more likely to be included in or the focus of the inference restriction process.

Inference certainty. The current experiment also extended the theoretical framework regarding detectors' certainty of a goal inference. Specifically, certainty is reasoned to be a product of inference-relevant data via the efficiency of pursuers' tactics. That is, certainty increases as detectors accumulate behavioral information from a pursuer that is consistent with their inference. Like the rationale for accuracy, this argument previously assumed detectors have ample cognitive resources. The present data, however, demonstrated that efficiency's effect on certainty is diminished for busy detectors because only not-busy detectors can fully appreciate and use information from efficient tactics in their certainty assessment. Moreover, certainty remains a product of goal-relevant information and not goal inference restrictions. That is, across multiple studies, the present one included, certainty does not seem to change depending on the extent to which context and tactic factors restrict inferable goals (as accuracy does). Future research might attempt to understand the limits of this conditional busyness effect: For example, perhaps detectors can overcome the deleterious effects of cognitive busyness if they are particularly motivated to infer a pursuer's goal accurately and therefore maintain an association between efficiency and certainty. Detection vigilance, in other words, might allow efficiency to boost detectors' certainty even in the face of being cognitively busy.

Perspective taking and communication competence. The data extended the framework in other ways too. First, detectors' perspective taking, in tandem with pursuers' efficiency, emerged as antecedents for inference accuracy. Specifically, perspective taking promoted accuracy only when pursuers were inefficient, which is consistent with language processing research (Gibbs, 1994; Holtgraves, 2005) and replicates results from a past goal detection study (Palomares, 2009a, Experiment 1). Second, detectors' impression of pursuers' competence was a function of accuracy, which also replicated a previous finding (Palomares). A novel and nuanced effect, however, is that accuracy's impact on pursuers' competence is present only if detectors are highly certain in their inference. When certainty is moderate or low, accuracy is not related to certainty because rival influences can determine competence instead. The current experiment, thus, provided useful replications and extensions in terms of perspective taking and competence.

Limitations

The experiment is limited in at least three ways. First, the accuracy measure was explicit. Because people can infer goals automatically (Dik & Aarts, 2007; Hassin et al., 2005), the current conclusions may be bound to mindful goal inferences. Then again, automaticity work that examined implicit inferences employed goals of animated geometric shapes (Dik & Aarts) or in scenarios (Hassin et al.) and not the goals of genuine social actors. Yet, detecting goals in actual talk might occur implicitly. Unconscious inferences notwithstanding, detectors in this and other experiments (Palomares, 2009a, 2009b) typically reach moderate to high accuracy, albeit primarily if pursuers are efficient. Whereas high accuracy of explicit inferences is particularly likely for efficient goal pursuit, perhaps unconscious inferences are accurate even at low efficiency. Likewise, perhaps busyness can interfere with the extent to which inferences are brought to mind. Thus, implicit inferences might be accurate for busy detectors. Though, because implicit goal inferences are similar in content to their explicit equivalents (Dik & Aarts; Kawada

et al., 2004), these concerns might be unwarranted and employing implicit (e.g., word recall/recognition, sentence completion or lexical decision tasks) measures in future work might be unneeded. Still, because these questions are empirical, and research should answer them.

A second limitation involves causality. The theoretical framework maintains that efficiency is causally related to inference accuracy. The current experiment, however, did not manipulate efficiency; instead, efficiency was assessed via coding. As a result, efficiency might not have had a causal impact on accuracy. This possibility is improbable, however, because efficiency increased accuracy in past research (Palomares, 2009a) wherein confederates manipulated efficiency in dyadic initial interactions (Experiment 2) thereby demonstrating causality and replicating the accuracy results of an initial experiment (Experiment 1) that coded efficiency with a measure similar to the current one. Although not fully eliminating this causality issue, the experiment lessens its severity. Even so, the experiment does not disambiguate the causality of other variables; thus, because the causal effects of perspective taking on accuracy and accuracy on competence remain questionable, future research should attempt to replicate the current findings with methods more conducive to unequivocally demonstrating causality.

Third, generalizability is questionable. Because the design used only initial interactions and information seeking goals, extending results beyond that context and this type of goal is somewhat problematic; thus, results should be interpreted with this in mind. Past research, however, addressed this issue to an extent by employing different goals in conversations between close friends and unacquainted individuals. Supporting the integration principle, efficiency increased accuracy only if the relational type was not strongly linked to the pursuer's goal: When the true goal was strongly linked to a dyad's unacquainted relational type (e.g., avoid awkwardness), efficiency was unrelated to accuracy; but if someone pursued the same goal in a close-friend dyad, then efficiency was associated with an increase in accuracy because the close-

friend relational type is not strongly linked to that goal (Palomares, 2009b). Moreover, because pursuers sought relational and compliance-gaining goals (i.e., not just information seeking goals), results are not limited to information-seeking objectives. However, this experiment tested the integration principle focusing exclusively on context and tactic factors and not in relation to goal congruency or cognitive busyness; thus, generalizing the current data to non-initial interactions and non-information-seeking goals might be done somewhat tentatively.

Conclusion

Goal detection is a fundamental process of social interaction. The current experiment helped throw additional light on goal detection. On the whole, data supported the proposed theoretical framework, illustrating that the availability of detectors' cognitive resources and the harmonic resonance of cointerlocutors' goals moderated previous findings (i.e., the integration principle; Palomares, 2008, 2009a, 2009b). What is more, a synthesis of the theoretic framework with related work on person perception proved fruitful. Continuing to advance research on the goal detection process in conversation will generate new knowledge and increase the understanding of interpersonal communication theory and research.

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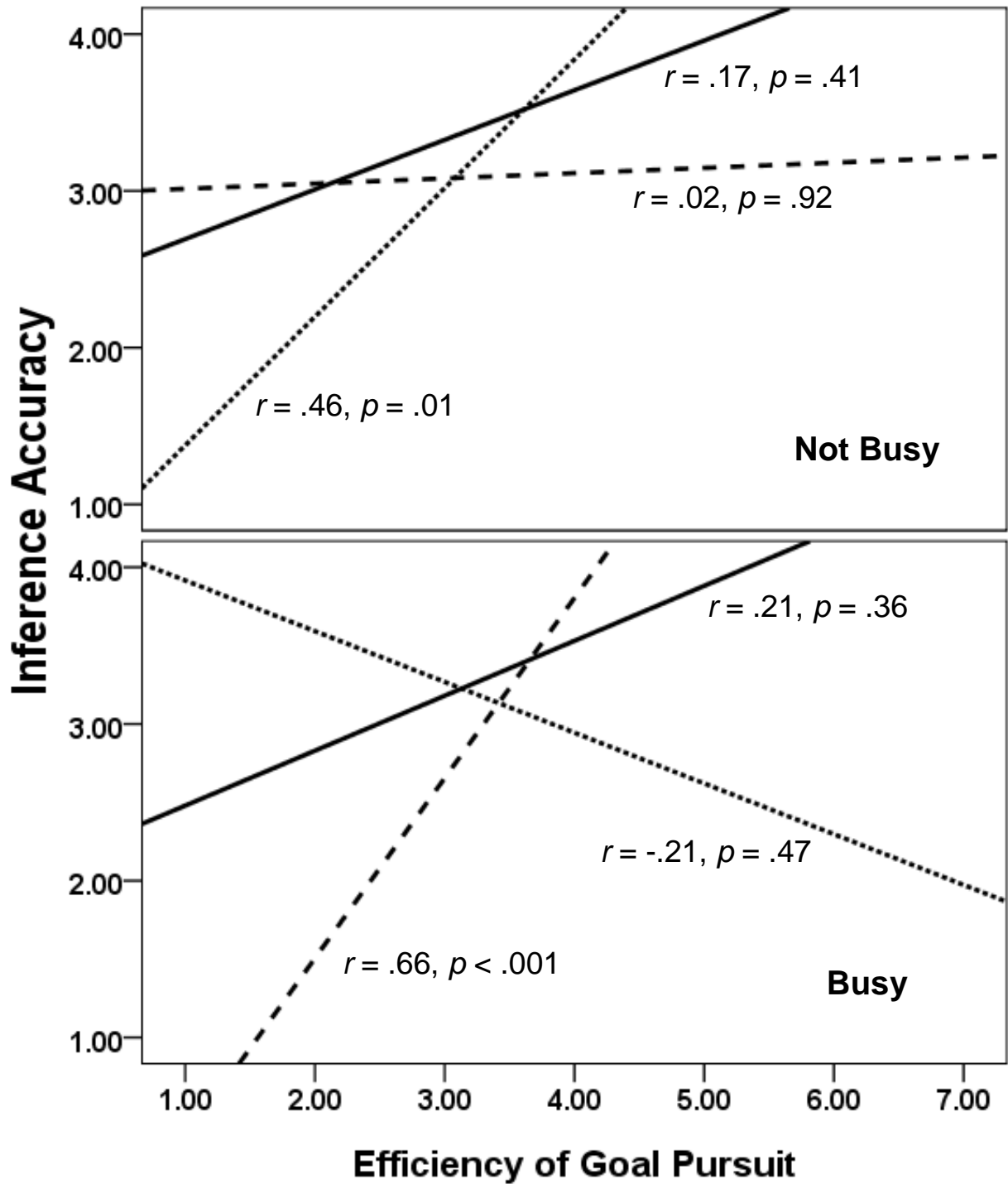
Figure Captions

Figure 1. Busy and not-busy detectors' inference accuracy as a function of pursuers' efficiency in the identical, concordant, and discordant goal-congruency conditions.

Figure 2. Busy and not-busy detectors' inference certainty as a function of pursuers' efficiency.

Figure 3. Detectors' inference accuracy as a function of detectors' perspective taking for low, moderate, and high levels of pursuers' efficiency.

Figure 4. Detectors' assessment of pursuers' communication competence as a function of detectors' inference accuracy for low, moderate, and high levels of detectors' inference certainty.



| Goal Congruency | | |
|-----------------|-----------|---------------|
| — | Identical | Concord |
| - - - - | Discord | |

